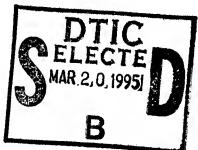
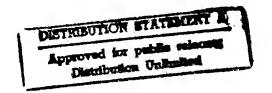
#### **DEFENSE BUSINESS OPERATIONS FUND - NAVY**

### FY 1996/1997 BIENNIAL BUDGET ESTIMATES OPERATING AND CAPITAL BUDGETS







FEBRUARY 1995

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## DEPARTMENT OF THE NAVY DEFENSE BUSINESS OPERATIONS FUND FY 1996 AND FY 1997 BUDGET ESTIMATES

The Department of the Navy has long operated a significant number of organic commercial and industrial facilities under revolving fund concepts to encourage these activities to function in a business like and efficient manner and to provide the flexibility needed to manage these functions under changing workload conditions. The Department of the Navy comprises the largest military component of the Defense Business Operations Fund (DBOF), with over half of its civilian personnel employed in DBOF activities. These DBOF activities include:

Supply Operations: Consists of three business areas. The Supply Management business area performs inventory management functions for shipboard and aviation repairables and consumables. Distribution Depots provide management of overseas Fleet Industrial Supply Centers. Logistic Support Activities perform miscellaneous support functions such as contract management reviews, port services, and large and small procurement for ashore and fleet commanders. Beginning in FY 1996 the Distribution Depot business area will be combined into the Supply Management business area.

#### Depot Maintenance:

Shipyards: Consists of eight shipyards, three of which are in a closing status as a result of Base Realignment and Closure Decisions. Civilian workyear reductions from year to year of 14 percent in FY 1995, 24 percent in FY 1996 and 7 percent in FY 1997 reflect the closures and the overall reduction in workload.

Aviation Depots: Consists of six aviation depots, three of which are in a closing status. Excluding BRAC, workload declines 6.5 percent in FY 1996 and a further 11 percent in FY 1997. End strength declines 12 percent in FY 1996 and 7 percent in FY 1997.

Weapons Stations: Consists of five weapons stations. This budget reflects the establishment of the Naval Ordnance Center, a major management initiative to provide world-wide logistics management of all Navy and Marine Corps ordnance under one organization. In addition, this budget reflects Mobilization costs for wartime contingencies funded from the Operations and Maintenance, Navy account in FY 1995 only. Beginning in FY 1996 these costs will be funded in DBOF rates.

Marine Corps Depots: Consists of one east coast and one west coast depot facility. Workload declines 31 percent in FY 1996 as Desert Storm carryover work and other backlog are completed by the end of FY 1995. Workload declines an additional 8 percent in FY 1997.

<u>Transportation:</u> Consists of the Naval Fleet Auxiliary Force (NFAF) vessels, Special Mission Ships (SMS), and Afloat Prepositioning Force (APF) service unique ships. Common user transportation functions are operated by the U.S. Transportation Command (TRANSCOM).

Research and Development: Consists of four Warfare Centers and two stand-alone laboratories that perform a wide range of research, development, test, evaluation, and engineering support functions. Civilian personnel decline approximately 13 percent through the budget years consistent with the declining workload base.

<u>Information Services:</u> Consists of nine computer and telecommunications activities which provide regional automated information systems services and design support plus the Fleet Material Support Office which provides central design services for supply systems.

Base Support: Consists of ten Public Works Centers supporting major Naval bases throughout the world. The steady workload and civilian staffing decline reflects the impending closure of Public Works Center, San Francisco, CA in FY 1998.

<u>Defense Printing Service</u>: A consolidated DoD business area consisting of Printing Production and Procurement facilities and numerous smaller Reprographic facilities. Significant workload reductions occur over the budget period which cause personnel reductions of 29 percent.

#### **COST OF OPERATIONS**

Costs incurred in providing goods and services sold to customers total \$22,334 million in FY 1996 and \$21,142 million in FY 1997.

	(dollars in millions)				
	FY 1994	FY 1995	FY 1996	<u>FY 1997</u>	
Supply Management	6,373.7	6,976.5	5995.5	5633.7	
Distribution Depots	87.6	52.1	0	0	
Logistics Support	248.6	225.6	126.0	125.5	
Depot Maintenance - Ships	3,749.2	3,287.6	2,442.0	2,325.6	
Depot Maintenance - Aircraft	1,961.4	2,017.0	1,886.7	1,408.4	
Depot Maintenance - Ordnance	670.4	603.1	551.0	532.5	
Depot Maintenance - Other	181.1	192.7	142.1	134.2	
Transportation	720 6	1,120.8	1,237.3	1,257.3	
Research and Development	7,693.2	7,672.5	7,638.4	7,462.6	
Information Services	429.0	205.6	207.7	206.8	
Printing Services	413.0	412.0	410.6	411.7	
Base Support	<u>1.917.1</u>	<u>1.778.8</u>	<u>1,704.3</u>	<u>1,692.6</u>	
Totals	24,444.9	24,544.3	2 <b>2,</b> 33 <b>4.0</b>	21,142.3	

#### STAFFING LEVELS

Total personnel (both civilian and military) employed at Navy DBOF activities are as follows:

*	(end strength in thousands)				
Civilian End Strength	FY 1994	FY 1995	FY 1996	FY 1997	
Supply Management	6.6	6.0	7.0°	6.7	
Distribution Depots	1.3	1.3	0	0	
Logistics Support	3.0	2.2	.1	.1	
Depot Maintenance - Ships	41.9	34.9	29.5	27.0	
Depot Maintenance - Aircraft	17.1	14.8	13.0	12.2	
Depot Maintenance - Ordnance	5.9	4.9	4.7	4.4	
Depot Maintenance - Other	2.2	2.0	1.8	1.7	
Transportation	4.7	4.9	5.4	5.5	
Research and Development	53.4	51.2	49.1	46.6	
Information Services	2.5	2.2	<b>2.</b> 2	2.2	
Printing Services	2.4	2.2	2.0	1.7	
Base Support	<u>14.7</u>	14.0	<u>13.8</u>	<u>13.4</u>	
Total	1 <b>5</b> 5. <b>7</b>	140.6	128.6	121.5	

	(end strength in thousands			
Military Personnel End Strength	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	.1	.1	.4	.4
Distribution Depots	.3	.3	0	0
Logistics Support	.2	.2	.2	.2
Depot Maintenance - Ships	.7	.4	.3	.3
Depot Maintenance - Aircraft	.2	.2	.2	.1
Depot Maintenance - Ordnance	.7	.8	.8	.8
Depot Maintenance - Other	0	0	0	0
Transportation	.9	1.1	1.2	1.3
Research and Development	1.1	1.1	1.1	1.0
Information Services	.2	.1	.1	.1
Printing Services	0	0	0	0
Base Support	.1	.1	<u>.1</u>	.1
Total	4.5	4.4	4.4	4.3

		(workyears in		
Civilian Workyears	<u>FY 1994</u>	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
Supply Management	6.7	6.1	7.0	6.7
Distribution Depots	1.1	1.2	-	-
Logistics Support	3.0	2.4	.2	.2
Depot Maintenance - Ships	45.3	38.7	<b>29.</b> 5	27.4
Depot Maintenance - Aircraft	17.2	16.5	15.3	12.8
Depot Maintenance - Ordnance	6.2	5.4	4.9	4.6
Depot Maintenance - Other	2.2	2.0	1.8	1.7
Transportation	5.3	5.0	<b>5.2</b>	5.4
Research and Development	54.9	51.9	49.8	47.3
Information Services	3.5	2.2	· 2.2	2.2
Printing Services	2.6	2.2	2.1	1.8
Base Support	14.1	14,2	<u>13.8</u>	13.5
Total	162.1	147.8	131.8	123.6
		(workyears in	thousands)	
Military Personnel Workyears	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	.1	.1	.4	.4
Distribution Depots	.3	.3	0	0
Logistics Support	.2	.2	.2	.2
Depot Maintenance - Ships	.7	.4	.3	.3
Depot Maintenance - Aircraft	.2	.2	.2	.1
Depot Maintenance - Ordnance	.6	.6	.9	.9
Depot Maintenance - Other	.0	.0	.0	.0
Transportation	.9	1.1	1.1	1.2
Research and Development	1.5	1.1	1.1	1.0
Information Services	.1	.1	.1	.1
Printing Services	.0	.0	.0	.0
Base Support	.1	.1	.1	<u>.1</u>
Total	4.7	4.2	4.4	4.3

#### NET OPERATING RESULT

	(dollars in millions)			
	FY 1994	FY 1995	<u>FY 1996</u>	FY 1997
Supply Management	297.7	-140.4	-429.0	0
Distribution Depots	Ó	.3	0	. 0
Logistics Support	0	6	.6	0
Depot Maintenance - Ships	-171.9	74.4	689.0	0
Depot Maintenance - Aircraft	-185.3	-9.4	404.8	0
Depot Maintenance - Ordnance	-162.4	130.1	78.3	0
Depot Maintenance - Other	11.1	19.7	9.5	0
Transportation	344.6	-7.6	12.2	0
Research and Development	-335.8	150.2	22.6	0
Information Services	14.4	-13.8	-5.7	0
Printing Services	-7.9	45.3	-8.2	0
Base Support	<u>75.2</u>	<u>45.5</u>	<u>-52.2</u>	<u>0</u>
Total	-120.3	293.5	721.3	0

#### **WORKLOAD**

Workload projections for Navy DBOF activities reflect the decline in Navy force structure and attendant support levels. The table below displays year to year percentage changes in direct labor hours or transportation ship days for the industrial business areas. For the supply business area, workload changes are indicated by net sales. The FY 1995 growth in the transportation business area reflects the transfer of Navy-unique Maritime Prepositioning Programs from TRANSCOM (U.S. Transportation Command) DBOF to Navy DBOF and the transition of additional fleet auxiliary ships from mission funded to DBOF funded.

	(percent change)		
	FY 1996	FY 1997	
Supply Management	-6.1%	-4.9%	
Depot Maintenance - Ships	-23.3%	-10.6%	
Depot Maintenance - Aircraft	-6.5%	-10.8%	
Depot Maintenance - Ordnance	-7.6%	<b>-6</b> .0%	
Depot Maintenance - Other	-30.9%	-7.7	
Transportation (ship per-diem days)	-1.5	3.3%	
Research and Development	-3.3%	-4.8%	
Information Services	-57%	1%	
Printing Services	-6.1%	-11.9%	
Base Support	-1.8%	-2.4%	

#### **CUSTOMER RATE CHANGES**

Composite rate changes from FY 1995 to FY 1996, and from FY 1996 to FY 1997, which are designed to achieve an accumulated operating result of zero at the end of FY 1996, are as follows:

	(perc	ent change)
	FY 1996	FY 1997
Supply Management (wholesale)	-22.5%	11.8%
Depot Maintenance - Ships	0.0%	4.9%
Depot Maintenance - Aircraft (composite) %	3.3%	
Depot Maintenance - Ordnance	13.7%	-8.8%
Depot Maintenance - Other	-10.2%	3.7%
Transportation:		
Fleet Auxiliary	3.6%	.5%
Special Mission	9%	9.3%
Afloat Prepositioning Ships	17.8%	4%
Research and Development:		
Research Lab	1.6%	5.6%
Civil Engineering Lab	3.5%	4.1%
NCCOSC	2.4%	1.7%
Undersea Warfare Centers	5.9%	2.5%
Surface Warfare Centers	2.8%	2.1%
Air Warfare Centers	1.2%	2.6%
Information Services:		
Fleet Material Support Office	.1%	7.3%
NCTC	.5%	4.2%
Printing Services	-6.8%	9.8%
Base Support:		
East Coast - utilities	-3.0%	-2.2%
East Coast - other	-2.9%	2.6%
West Coast - utilities	-11.3%	2.5%
West Coast - other	1.0%	2.9%

#### **UNIT COST**

Unit Cost is the method established in the DBOF to authorize and control costs. Unit cost goals allow activities to respond to work load changes in execution encouraging reduced costs when work load declines and allowing increased costs when additional services are requested by their customers. The Unit Cost goals for FY 1996 and FY 1997 are as follows:

		Unit Cost	Unit cost
Business Area	Unit Cost Goal	FY 1996	<u>FY 1997</u>
Supply Management	Oblig/\$ Whls Sale	.87	.87
	Oblig/\$ Retail Sale	.98	<b>.9</b> 8
	Other Outputs (OA, \$millions):	226.3	227.8
	Centrally Managed Programs	112.6	116.0
	Over Ocean Transportation	95.7	93.2
	Real Property Maintenance (\$millions)	14.4	14.8
	Physical Distribution/NPFC (\$millions	3.7	3.8
Logistics Support			
Activity	(OA, \$millions):	27.5	28.2
	Environmental Funding (\$millions)	1.6	1.6
	RPM (\$millions)	1.9	2.0
	MILPERS (\$millions)	7.4	7.4
	G&A Support to Others (\$millions)	16.5	17.2
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Depot Maint-Ships	\$ per Direct Labor Hour	78.38	83.51
Depot Maint-Aircraft	\$ per Direct Labor Hour	118.96	105.12
Depot Maint-Ordnance	\$ per Direct Labor Hour	106.60	97.21
Depot Maint-Other	\$ per Direct Labor Hour	70.91	72.63
Base Support	Multiple unit cost measures	na	na
December 4	•		
Research and Development	\$ per Direct Labor Hour	79.27	81.14
·	T por Direct Edition from	17.21	01.14
Information Services	Multiple unit cost measures	na	na
Printing Services	Multiple unit cost measures	na	na
Transportation	NFAF cost per day \$	48,015	45,459
	SMS cost per day \$	27,458	28,470
	APF cost per day \$	66,581	68,664

#### **CAPITAL BUDGET**

The following table depicts capital investment levels for the Navy DBOF business areas:

	(dollars in millions)				
•	FY 1994	FY 1995	<u>FY 1996</u>	FY 1997	
Supply Management	5.2	4.4	16.6	14.8	
Distribution Depots	.8	.5	0	. 0	
Logistics Support	25.4	14.8	21.6	<b>2</b> 2.1	
Depot Maintenance - Ships	63.3	33.1	17.2	51.0	
Depot Maintenance - Aircraft	11.7	9.9	22.8	36.7	
Depot Maintenance - Ordnance	26.5	12.0	13.6	9.3	
Depot Maintenance - Other	3.1	6.0	3.9	6.4	
Transportation	5.1	4.8	6.0	2.9	
Research and Development	154.8	94.3	134.5	125.2	
Information Services	2.1	1.3	1.3	1.2	
Printing Services	11.6	7.7	15.0	7.0	
Base Support	<u>31.3</u>	<u>14.7</u>	<u>25.8</u>	<u>24.8</u>	
Totals	340.9	203.5	278.3	301.4	

Note: The FY 1995 total is \$129.5 million, or 39 percent below the FY 1995 President's Budget request of \$329.0 million due to Congressional action and the transfer of \$10.0 million for purchase of ADP hardware for logistics systems from the Joint Logistics Systems Center (JLSC) budget to the Navy budget.

## DEPARTMENT OF THE NAVY TOTAL DBOF REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	<u>FY 1997</u>
Parrament	•			
Revenue:	22 620 0	24.524.0	01 071 0	21 104 0
Gross Sales	23,638.8	24,534.0	21,841.0	21,104.9
Operations	23,130.0	24,035.3	21,342.1	20,611.2
Capital Surcharge	8.2	172.8	155.8	153.0
Depreciation except Maj Const	358.3	325.9	343.0	340.7
Major Construction Depreciation	142.3	0.0	0.0	0.0
Other Income	145.1	154.5	870.4	175.8
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	23,783.9	24,688.5	22,711.4	21,280.7
Expenses:				
Cost of Materiel Sold from Inventory	5,671.5	5,310.0	5,012.2	4,706.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	458.5	455.7	426.3	381.5
Salaries and Wages:				
Military Personnel	200.3	159.0	157.2	158.2
Civilian Personnel	8,238.3	7,650.3	7,141.3	6,798.9
Materials, Supplies and				
Parts used in Operations	2,163.6	2,479.3	2,242.8	2,165.6
Facility Repair Charge	554.3	562.9	528.8	524.8
Depreciation - Capital	487.4	325.9	343.0	340.7
Contracted Engineering Services	480.1	568.6	593.8	626.9
Lease Costs	159.8	294.9	303.8	301.2
Purchased Utilities	640.7	623.9	558.9	545.8
Purchased Communications	190.1	167.8	94.9	89.6
Equipment Maintenance	132.0	138.3	129.4	129.5
Fuel	140.0	157.0	162.9	170.5
Other Expenses	4,381.4	5,110.8	4,373.3	4,017.8
Total Expenses	23,897.8	24,004.3	22,068.7	20,957.0
Operating Result	(113.9)	684.2	642.7	323.7
Less Capital Surchg Reservation	8.2	172.8	155.7	153.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	101.6	76.0	423.7	(0.0)
Inventory Gains and Losses	(299.9)	(294.0)	(188.8)	(170.7)
Net Operating Result	(120.4)	293.5	721.3	0.0
Prior Year AOR	(894.4)	(1,014.8)	(721.3)	(0.0)
Accumulated Operating Result	(1,014.8)	(721.3)	0.0	0.0

## DEPARTMENT OF THE NAVY TOTAL DBOF SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 24,488.5	FY 1995 23,383.9	FY 1996 21,505.8	FY 1997 20,439.5
a. Orders from DoD Components	21,001.7	20,630.5	18,920.8	18,181.1
Department of the Navy	13,359.7	12,295.8	12,344.8	11,510.4
Operations and Maintenance, Navy	8,740.2	9,224.2	9,141.1	8,594.5
Operations and Maintenance, Marine Corps	306.9	356.2	358.1	348.2
O&M, Navy Reserve	165.7	153.0	117.1	126.7
O&M, Marine Corps Reserve	4.6	7.7	7.3	7.2
Aircraft Procurement, Navy	1,579.8	1,429.0	1,335.9	1,280.4
Weapons Procurement, Navy	586.9	454.8	401.2	391.3
Shipbuilding & Conversion, Navy	<b>7</b> 05.7	668.8	667.6	647.2
Other Procurement, Navy	2,183.7	1,661.1	1,399.7	1,434.5
Procurement, Marine Corps	68.2	88.6	104.5	94.6
Family Housing, Navy and Marine Corps	310.8	283.8	247.1	246.1
Research, Development, Test & Eval, Navy	2,516.6	2,251.5	2,138.7	2,174.4
Military Construction, Navy	16.3	4.6	4.5	4.0
Other Navy Appropriations	181.6	148.0	136.7	135.0
Other Marine Corps Appropriations	45.6	36.3	35.5	36.5
Department of the Army	287.9	280.7	251.1	251.4
Army Operation & Maintenance Accounts	172.6	243.6	211.3	218.6
Army Res, Dev, Test & Eval Accounts	17.1	34.8	3 <b>9</b> .2	33.8
Army Procurement Accounts	11.9	11.7	11.8	10.2
Army Other	135.9	37.2	28.6	28. <b>9</b>
Department of the Air Force	223.6	220.7	233.7	234.1
Air Force Operation & Maintenance Accounts	445.5	449.2	407.6	387.8
Air Force Res, Dev, Test & Eval Accounts	48.8	73.3	78.3	87.3
Air Force Procurement Accounts	27.1	26.3	<b>26.6</b>	29.4
Air Force Other	55.6	19.8	17.9	18.0
DoD Appropriated Accounts	1,207.6	1,346.8	940.6	689.4
Base Closure and Realignment	311.9	710.3	311.7	65.2
Operation & Maintenance Accounts	249.9	85.1	73.4	73.1
Res, Dev, Test & Eval Accounts	200.1	260.7	268.4	274.5
Procurement Accounts	132.9	26.7	23.3	21.6
DoD Other	333.6	285.0	276.4	267.2
b. Orders from DBOF Business Areas	4,019.2	3,558.4	2,948.1	2,775.5
c. Total DoD	23,574.7	22,589.4	20,817.6	19,811.5
d. Other Orders	914.1	794.4	<b>68</b> 8.2	628.0
Other Federal Agencies	230.7	201.4	175.1	180.9
Trust Funds (including FMS)	489.9	407.1	333.4	372.6
Non Federal Agencies	193.5	185.9	179.7	74.6
2. Carry-In Orders	7,585.5	8,750.3	7,270.5	6,256.0
3. Total Gross Orders (available funding)	32,074.3	32,134.2	28,776.2	26,695.6
4. Carry-Out Orders	8,749.2	7,460.0	<b>6,256.</b> 0	5,400.4
Change in Backlog (carry-out less carry-in)	1,622.7	(1,276.1)	(823.3)	(870.1)
5. Total Gross Sales	23,783.9	24,688.5	22,711.4	21,280.7

# DEPARTMENT OF THE NAVY TOTAL DBOF CAPITAL BUDGET (Dollars in Millions)

Category	FY 1994	FY 1995	FY 1996	FY 1997
Equipment (except ADP & Telecom) ADPE and Telecom	160.2 117.5	79.0 88.1	125.7 102.9	162.5 87.3
Software Development	18.2	11.2	11.6	10.2
Minor Construction	45.0	25.2	38.1	41.4
Total	340.9	203.5	278.3	301.4

#### DEFENSE BUSINESS OPERATIONS - FUND FY 1996 / FY 1997 BUDGET ESTIMATE

#### SUPPLY MANAGEMENT

#### Background

The Department of the Navy Supply Management business area of the Defense Business Operations Fund (DBOF) performs inventory management functions that result in the sale of aviation, shipboard and amphibious consumables and repairables, fuel, ships store stock, general use consumables including subsistence material, and publications and forms to a wide variety of customers. These include Fleet and Marine Corps forces, Department of the Navy shore activities, Army, Air Force, Defense Agencies, other government agencies and foreign governments. All costs related to supplying this material to the customers are recouped through a stabilized price which includes the cost of the material, overhead (personnel, depreciation, transportation, etc.), and receipt and issue processing at distribution depots.

The Department benefits from the operation of this business area in two ways: 1) because a single inventory supplies all customers, investment in inventories is reduced and 2) purchase costs are reduced through bulk material purchases and centralized management.

Operations costs for the following activities are funded in the Supply Management business area:

Navy Ships Parts Control Center, Mechanicsburg, Pa Navy Aviation Supply Office, Philadelphia, Pa Marine Corps Logistics Base, Albany, Ga

Due to both the refinement of functions and force reduction, the annual operating cost of one of the three Navy Supply related business areas, Distribution Depots, has declined significantly to an estimate of \$ 52 million in FY 1996. The Supply Management stabilized price bears the cost of the receipts / issues performed by the depots and is the sole customer. Consequently, starting in FY 1996, the Distribution Depot business area is incorporated into the Supply Management business area.

#### BUDGET HIGHLIGHTS

#### **Ouantitative Summary:**

	FY 1994	FY 1995	FY 1996	FY 1997
Total Cost (\$M)	6373.7	6976.5	5995.5	5633.7
Net Operating Results (\$M)	297.7	-140.4	-429.0	0.0
Accumulated Operating				
Results (\$M)	569.4		0.0	0.0
Workload (Net Sales) (\$M)	6401.1	6779.3	5492.3	5557.5
Supply Material Availability:				
Navy	81%	82용	82%	<b>82</b> %
Marine Corps	85%	85%	85%	85% .
Customer Rate Changes:				
Navy	6.0	22.1	-22.5	
Marine Corps	9.8	. 7	-9.1	<b></b> 5
Unit Costs:				
Wholesale (\$)	.79	.70	.87	.78
Retail (\$)	.95	.96	.98	.98
Civilian End Strength	6674	5992	7043	6679
Military End Strength	142	120	379	379
Civilian Workyears	6824	6102	7027	6663
Military Workyears	142	120	379	379

#### Civilian and Military End Strength / Workyears:

The total civilian and military end strength for all three Supply Business areas decreases by 13 percent in FY 1995, 24.5 percent in FY 1996, and an additional 5 percent in FY 1997. The significant decreases are a result of Base Realignment and Closure (BRAC) actions, streamlining to match force structure reductions and transfers to direct funding of some functions from the Logistics Support Activities business area starting in FY 1996.

The civilian and military personnel totals provided in the Supply Management quantitative data include Distribution Depot totals starting in FY 1996 since that business area has been combined with the Supply Management business area.

#### Unit Cost:

Wholesale and Retail unit cost rates provide the requisite obligational authority for the business area. Material and Supply Operations obligation requirements support the force structure and operating tempo funded in the Department's budget. Obligation requirements in the Supply Management business area decrease in all budget years relative to the previous year as follows: FY 1995 -3.6 percent, FY 1996 -6.9 percent, FY 1997 -3.3 percent. (actual unit cost rates are provided in the quantitative summary)

#### Workload:

The workload or unit cost resourcing unit of measure for Supply Management is net sales. To obtain an accurate picture of workload trends, Wholesale net sales must be normalized due to rate changes from year to year. Once the Wholesale rate changes are considered, the Department's Supply Management workload indicates a 5.9 percent decrease in FY 1995 (relative to FY 1994), another 6.1 percent decrease in FY 1996, and another 4.9 percent decrease in FY 1997. These workload projections are based on the force structure and fleet operating tempo. Aviation material requirements are based on the recurring demand from the Flying Hour Program, while the shipboard recurring demand matches the decreased number of ships.

#### Customer Rate Changes:

The FY 1996 Navy Supply management rate change is a decrease from FY 1995 of 22.5 percent while the Marine Corps FY 1996 customer rate decreases by 9.1 percent. The decrease in the FY 1996 Navy rate follows an increase of 22.1 percent in FY 1995 and is due to a number of factors including, passing back prior year profits from FY 1994 and FY 1995 generated from increased Wholesale sales (revenue) while overhead has been decreasing and profits generated from the sell down of Retail inventory levels. The Navy FY 1997 Supply Management customer rate increases by 11.8 percent in FY 1997 and the Marine Corps customer rate will decrease by .5 percent.

#### Supply Inventory and Material Replacement:

The DoN continues to aggressively pursue the goals of the DoD Inventory Reduction Plan and this submission supports the objective of reducing inventory investment and matching force structure decreases. This submission provides for decreases in both Wholesale and Retail inventory levels in all years.

Standard price inventory is projected to decrease by 8 percent in FY 1995 relative to FY 1994, another 8 percent decrease in FY 1996, and another 6.8 percent decrease in FY 1997.

To date the procurement obligation limitation (material replacement rate) of 65 percent of sales has not had a negative impact on the Department. Because of the current force structure reductions, the large amount of material returns, the exclusions allowed, and the increasing reliance on repair, readiness has not been impacted. The Department continues to monitor the impact of the limitation closely.

#### Performance Indicators:

The primary performance indicator for the Supply Management business area is Supply Material Availability (SMA),

which is the percentage of customer material requests that can be satisfied immediately from shelf stock. The current budget supports Navy obtaining an SMA of 82 percent in the budget years. Similarly, the current Supply Management budget supports the Marine Corps obtaining an SMA of 85 percent.

#### **Headquarters Costs:**

Costs are included to support the contribution of headquarters resources towards fulfilling the objective of this business area. These costs total approximately \$ 5 million in FY 1996 and FY 1997.

#### Economies and Efficiencies:

The Department of the Navy continues to be committed to the goal of achieving maximum utilization of minimal inventory investments. The significant initiatives which are incorporated into the Department submission follow:

- Increased use of total asset visibility. The visibility of Wholesale, and consumer inventories are being tied together to optimize inventory investment.
- Maximum use of anticipated materials generated from decommissionings and force structure reductions.
- Increased reliance on Wholesale inventories.
- Expanded reliability improvement initiatives to reduce inventories and lower maintenance costs.
- Consolidation ashore of insurance stock.
- Elimination of requirements and recurring demand 24 months prior to decommissionings.
- State of the art demand forecasting techniques.
- Improved files accuracy.
- Cancellation of contracts and or "buys in process" for material which becomes inactive subsequent to a buy decision.
- Continuation of an aggressive disposal policy.
- Introduction of cultural change in inventory management.
  - -- Personnel evaluations based on IRP objectives.
  - -- Total Quality Management (TQM) at all levels.
  - -- Personal Qualifications Standards established.

#### Cost of Depot Level Repairables:

The DoN obligational authority included in the Supply Management budget in support of Depot Level Repairables (DLRs) follows:

	FY 1994	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
Total	\$1,716M	\$1,790M	\$1,719M	\$1,284M
Repair	\$1,225	\$1,216	\$1,061	\$ <b>9</b> 68
Procurement	\$ 491	\$ 574	\$ 658	\$ 316

The obligations for DLRs highlight the dependence on repair versus procurement. Repair obligations primarily support recurring demand and include the year to year fluctuations in organic DLR repair prices of the NADEPs, Shipyards and Weapon Stations. Procurement obligations support both outfitting and repair attrition requirements.

Capital Budget Program Authority - The Supply Management business area Capital Budget finances the procurement of capital equipment, management information systems, and minor construction. These items are depreciated over the useful life of the asset, with the cost of depreciation included in the material surcharge.

#### DEFENSE BUSINESS OPERATIONS FUND SUPPLY MANAGEMENT - DON REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Net Sales:				
Operations	6612.8	6704.7	<b>.</b> 5432.7	5496.3
Capital Surcharge(JLSC)	00.2.0	66.7	38.7	37
Depreciation except Maj Const	2.1	7.9	20.9	23.9
Major Construction Depreciation	0.3	0.0	0.0	0.0
Other Income	56.2	56.8	74.2	76.5
Refunds/Discounts				
Total Income	6671.4	6836.1	55 <b>66</b> .5	5633.7
Expenses:				
Cost of Materiel Sold from Inventory	5671.5	5310.0	5012.2	4706.0
Transportation	57.7	59.7	<b>6</b> 5.5	62.9
Salaries and Wages:				
Military Personnel	7.0	5.9	14.5	14.4
Civilian Personnel	291.6	282.7	278.7	267.8
Materials, Supplies and	36.7	43.6	54.2	55. <b>8</b>
Parts used in Operations				
Facility Repair Charge	2.2	2.6	<b>2</b> .7	2.7
Depreciation - Capital	2.3	7.9	20.9	23.9
Contracted Engineering Services	0.0	<b>0</b> .0	0.0	0.0
Lease Costs	1.3	2.0	4.1	4.3
Purchased Utilities	5.3	5.2	8.0	8.2
Purchased Communications	6.9	6.4	6.7	7.0
Equipment Maintenance Fuel	.1.2	1.2	1.6	1.6
:	0.0	0.0	0.0	0.0
Other Expenses TO Distribution Depots	-190.7	708.9	259.4	231.9
To Logistics Support	69.8	37.6	0.0	0.0
To Englishes Support	111.0	142.1	<b>3</b> 9.6	39.5
Total Expenses	<b>6073.</b> 8	6615.8	5768.0	5426.0
Operating Result	<b>5</b> 97. <b>6</b>	<b>22</b> 0.3	<b>-2</b> 01.5	207.7
Less Capital Surchg Reservation	0.0	66.7	38.7	37.0
Plus Appropriations Affeting NOR/AOR	0.0	<b>0</b> .0	0.0	0.0
Other Changes Affecting NOR/AOR	0.0	0.0	0.0	0.0
Inventory Gains and Losses	<b>-29</b> 9.9	<b>-2</b> 94.0	-188.8	-170.7
Net Operating Result	297.7	-140.4	<b>-42</b> 9.0	0.0
Prior Year and Other Adjustments	0.0	0.0	0.0	0.0
Prior Year AOR	271.7	569.4	429	0.0
Net Result	297.7	-140.4	-429	0.0
Accumulated Operating Result	<b>5</b> 69.4	429	0.0	0.0

#### SUPPLY MANAGEMENT - NAVY SOURCE OF REVENUE (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders				
a. Orders from DoD Components:				
Own Component				•
1105 Military Personnel, M.C.	35.8	28.5	28.8	29.6
1106 O & M, Marine Corps	194.6	187.0	191.1	196.6
1107 O & M, M.C. Reserve	1.5	1.5	1.5	1.5
1108 Reserve Personnel, M.C.	5.6	6.0	6.2	6.4
1109 Procurement, M.C.	21.6	23.3	31.8	25.1
1319 RDT & E, Navy	0.2	0.2	0.2	0.2
1405 Reserve Personnel, Navy	12.4	12.5	11.3	10.6
1453 Military Personnel, Navy	51.7	52.0	47.0	44.2
1506 Aircraft Procurement, Navy	769.7	614.3	540.6	544.0
1611 Shipbuilding & Conv. Navy	98.2	73.0	47.4	70.5
1804 O & M, Navy	2656.7	3290.6	2733.1	2946.0
1806 O & M, Navy Reserve	76.6	64.5	59.5	57.0
1810 Other Procurement, Navy	128.2	118.3	51. <b>7</b>	78.3
4930 Defense Business Operations Fund	1731.2	1805.9	1402.1	1392.2
8421 Trust Revolving Fund, M.C.	0.1	0.1	0.1	0.1
,	5,784.1	6,277.7	5,152.4	5,402.3
Orders from other DoD Components				
2100 Army	49.5	46.6	39.8	40.1
5700 Air Force	353.4	347.8	296.7	288.4
9700 other DoD	20.8	20.8	12.6	12.2
	423.7	415.2	349.1	340.7
b. Orders from other Fund Business Areas:				
Marine Corps Depot Maintenance	9.5	15.2	14.7	15.0
Distribution Depots Navy	3.1	4.7	2.6	2.2
Logistics Support Navy	41.7	59.7	33.4	28.4
	54.3	79.6	50.7	45.6
c. Total DoD	6,262.1	6,752.6	5, <b>534</b> .9	5,771.4
d. Other Orders:				
Other Federal Agencies	55.7	60.5	40.6	43.4
Trust Fund	0.0	0.0	0.0	
Non Federal Agencies	117.8	115.1	112.4	5.5
Foreign Military Sales (FMS)	150.7 324.2	177.9 353.5	122.2 275. <b>2</b>	157.2 206.1
2. Carry-In Orders	321.2	333.5	27012	200.1
3. Total Gross Orders	6,586.3	7,106.1	5,810.1	5,977.5
4. Change to Backlog	459.0	14.3	191.1	(14.5)
5. Total Gross Sales	7,045.3	7,120.4	6,001.2	5,963.0
Reimbursable Orders				
(BP 91)	56.2	56.8	69.0	71.2

NAVY SUMMARY FY 1994 (Dollars in Millions)

		N.C-	A11	OBLIGATION	TARGETS		TOTAL	CAMITALES	TARGET
DIVISION	PEACETIME	NET CUSTOMER ORDERS	NET SALES	OPERATING MO	BILIZATION	OTHER	- TOTAL ( OBLIGATIONS	TARGET	TOTAL
BP 14									•
Approved		160.8	160.8		. 0.0	0.0		0.0	118.6
Request	1,548.4	185.3	210.7		0.0	0.0		0.0	107.5
Delta	130.2	24.5	49.9	(11.1)	0.0	0.0	(11.1)	0.0	(11.1
BP 15								N.	
Approved	22.8	11.5	11.5	12.2	0.0	0.0	12.2	. 0.0	12.
Request	24.7	9.5	9.5	8.4	0.0	0.0	8.4	0.0	8.4
Delta	1.9	(2.0)	(2.0)	(3.8)	0.0	0.0	(3.8)	0.0	(3.
BP 21		(=/	1	•			•		,
Approved	29.2	195.8	195.8	189.3	0.0	0.0	189.3	0.0	189.3
Request	58.6	192.4	182.2	179.7	0.0	0.0		0.0	179.7
Delta	29.4	(3.4)	(13.6)		0.0	0.0		0.0	(9.0
BP 23	29.4	(3.4)	(13.0)	(5.0)	0.0	0.0	(3.0)	0.0	(5.0
		647	e	20.0			20.0	0.0	20.6
Approved		51.7	51.7 57.0	38.8	0.0	0.0		0.0	38.6
Request	66.4	57.2	57.2	21.2	0.0	0.0	21.2	0.0	21.3
Delta	(18.0)	5.5	5.5	(17.6)	0.0	0.0	(17.6)	0.0	(17.0
BP 25									
Approved	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Request	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delta	0.0	(1.0)	(1.0)	(1.0)	0.0	0.0	(1.0)	0.0	(1.0
BP 28									
Approved	1,855.6	1.422.7	1,423.1	1,402.4	0.0	0.0	1,402.4	0.0	1,402.4
Request	1.722.2	1,277.8	1,290.0	1,234.0	0.0	0.0	1,234.0	0.0	1,234.0
Delta	(133.4)	(144.9)	(133.1)	•	0.0	0.0	(168.4)	0.0	(168.4
BP 34	(1.55.1)	( ,	(	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0	• 10	(100.1)		,,,,,,,
Approved	1.727.7	410.4	450.2	329.0	0.0	0.0	329.0	0.0	329.0
Request	1,852.4	447.7	519.6	368.8	0.0	0.0	368.8	0.0	368.8
Delta	124.7	37.3	69.4	39.8	0.0	0.0	39.8	0.0	39.8
BP 38	12-7.7	07.0	05.4	03.0	0.0	0.0	<b>Q3.0</b>	0.0	03.0
Approved	205.3	1,255.0	1,255.0	1,267.7	0.0	0.0	1,267.7	0.0	1,267.7
Request	222.3	1,241.4	1,241.4	1,217.0		0.0	1,217.0	0.0	1,217.0
	17.0	-		•	0.0				
Delta BP 54	17.0	(13.6)	(13.6)	(50.7)	0.0	0.0	(50.7)	0.0	(50.7
	70.0		40.0						
Approved	78.2	8.5	10.3	5.7	0.0	0.0	5.7	0.0	5.7
Request	49.3	11.0	10.8	1.5	0.0	0.0	1.5	0.0	1.5
Delta	<b>(28.9</b> )	2.5	0.5	(4.2)	0.0	0.0	(4.2)	0.0	(4.2
BP 81			_						
Approved	8,435.3	793.4	793.4	392.7	0.0	0.0	392.7	0.0	<b>3</b> 92.7
Request	8,547.8	845.9	841.0	293.6	0.0	0.0	293.6	0.0	293.6
Delta	112.5	52.5	47.6	(99.1)	0.0	0.0	(99.1)	0.0	(99.1
BP 84		**	REPAIR->	191.9					
Approved	375.7	36.5	39.6	44.0	0.0	0.0	44.0	0.0	44.0
Request	415.3	47.5	45.7	35.4	0.0	0.0	35.4	0.0	35.4
Deta	39.6	11.0	6.1	(8.6)	0.0	0.0	(8.6)	0.0	(8.6
3P85	55.5		REPAIR->	11.2	0.0	0.0	(0.0)	•	,0
Approved	14.081.5	1,571.8	1,814.1	1,457.8	0.0	0.0	1,457.8	0.0	1,457.8
Request	16,124.4	1.850.7	2,207.1	1,363.1	0.0	0.0	1,363.1	0.0	1,363.1
Delta	2,042.9	278.9	393.0	(94.7)	0.0	0.0	(94.7)	0.0	(94.7
3P 91	2,542.8	2/0.8	REPAIR->		0.0	0.0	(54.7)	0.0	(54./
				1,023.3			1004		4 004 4
Approved	0.0	0.0	0.0	1,331.4	0.0	0.0	1,331.4	0.0	1,331.4
Request	0.0	0.0	0.0	1,376.2	0.0	0.0	1,376.2	0.0	1,376.2
Delta	0.0	0.0	0.0	44.8	0.0	0.0	44.8	0.0	44.8
TOTAL									
Approved	28,313.9	5 <b>,91</b> 9.1	6,206.5	6,590.6	0.0	0.0	6,590.6	0.0	<b>6,59</b> 0.6
Request	30,631.8	6,166.4	6,615.2	6,206.4	0.0	0.0	6,206.4	0.0	6,206.4
Delta	2,317.9	247.3	408.7	(384.2)	0.0	0.0	(384.2)	0.0	(384.2

NAVY SUMMARY FY 1995 (Dollars in Millions)

				OBLIGA	TION TARGETS		- TOTAL C	OMMITMEN	TARGET
DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	OTHER		TARGET	TOTAL
BP 14					,	•	90.4	0.0	80.4
Approved	1,583.2	138.2	138.2	80.4		0.0			74.4
Request	1,407.6	100.9	<b>108</b> .5	74.4		0.0		0.0	
Delta	(175.6)	(37.3)	(29.7)	(6.0	) 0.0	0.0	(6.0)	0.0	(6.0
BP 15	(*******	• •							
Approved	22.1	10.6	10.6	11.3	0.0	0.0		0.0	11.3
Request	20.2	10.4	10.4	11.3	0.0	0.0		0.0	11.3
Delta	(1.9)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0
BP 21	()	(/							
Approved	29.6	82.6	82.6	82.6	0.0	0.0	82.6	0.0	82.6
Request	61.0	192.0	192.0	186.5	0.0	0.0	186.5	0.0	186.5
	31.4	109.4	109.4	103.9	0.0	0.0	103.9	0.0	103.9
Delta	31.4	108.4	105.4	100.0	• • • • • • • • • • • • • • • • • • • •		4		
BP 23		04.0	31.9	32.2	0.0	0.0	32.2	0.0	32.2
Approved		31.9		33.4	0.0	0.0		0.0	33.4
Request	58.5	57.1	57.1					0.0	1.2
Delta	(24.4)	25.2	25.2	1.2	0.0	0.0	1.2	0.0	
BP 25								• •	
Approved	0.0	1.0	1.0	1.0	0.0	0.0		0.0	1.0
Request	0.0	1.0	1.0	1.0	0.0	0.0		0.0	1.0
Deta	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BP 28	•.•								
Approved	1,751.9	1,412.9	1,411.4	1,281.4	0.0	0.0	1,281,4	0.0	1,281.4
• •	1,407.9	1,306.3	1,304.9	1.199.7	0.0	0.0	1,199.7	0.0	1,199.7
Request			(106.5)			0.0	· · · · · · · · · · · · · · · · · · ·	0.0	(81.7
Delta	(344.0)	(106.6)	(100.5)	(01.7	, 0.0	0.0	(0,	0	(
BP 34		£40.0	<b>500.0</b>	281.0	0.0	0.0	281.0	0.0	281.0
Approved	1,950.4	546.9	530.0		•	0.0	308.7	0.0	308.7
Request	1,882.9	641.2	621.8	308.7	0.0		27.7	0.0	27.7
Delta	(67.5)	94.3	91.8	27.7	0.0	0.0	21.1	0.0	21.1
BP 38							507.0	0.0	597.8
Approved	194.3	597.6	597.6	597.8	0.0	0.0		*	983.7
Request	205.8	986.3	<b>986.</b> 3	983.7	0.0	0.0	983.7	0.0	
Delta	11.5	388.7	388.7	385.9	0.0	0.0	385.9	0.0	385.9
BP 54									
Approved	76.6	17.3	17.8	5.2	0.0	0.0	5.2	0.0	5.2
Request	42.8	12.3	12.8	2.0	0.0	0.0	2.0	0.0	2.0
Deta	(33.8)	(5.0)	(5.0)	(3.2)	0.0	0.0	(3.2)	0.0	(3.2
BP 81	,				•				
Approved	8.816.7	840.2	840.2	442.3	0.0	0.0	442.3	0.0	442.3
Request	8,047.3	783.2	804.0	310.4	0.0	0.0	310.4	0.0	310.4
Delta	(769.4)	(57.0)	(36.2)			0.0	(131.9)	0.0	(131.9
BP 84	(100.4)		REPAIR->	186.2	, 0.0		(,		`
	392.3	58.3	60.2	39.4	0.0	0.0	39.4	0.0	39.4
Approved			52.2	41.9	0.0	0.0		0.0	41.9
Request	382.6	44.7				0.0		0.0	2.5
Delta	(9.7)	(13.6)	(8.0)		0.0	0.0	2.5	0.0	2.0
BP85			REPAIR->	13.3			4.050.7		4 050 7
Approved	16,789.9	1,992.2	2,087.0	1,258.7	0.0	0.0	1,258.7	0.0	1,258.7
Request	18,931.9	2,629.6	2,628.3	1,438.5	0.0	0.0		0.0	1,438.5
Delta	2,142.0	637.4	541.3	179.8	0.0	0.0	179.8	0.0	179.8
BP 91		•	REPAIR->	1,017.4					
Approved	0.0	0.0	0.0	1,270.1	0.0	0.0		0.0	1,270.1
Request	0.0	0.0	0.0	1,259.7	0.0	0.0	1,259.7	0.0	1,259.7
Delta	· 0.0	0.0	0.0	(10.4)		0.0		0.0	(10.4
TOTAL	0.0	0.0	0.0	(	,				·
	21 690 0	5.729.7	5,808,5	5,383.4	0.0	0.0	5,383,4	0.0	5,383.4
Approved	31,689.9	5,729.7 6.765.0	6,779.3	5,851.2		0.0	-,	0.0	5,851.2
Request	32,448.5					0.0		0.0	467.8
Delta	758.6	1,035.3	970.8	467.8	0.0	0.0	407.0	0.0	407.

NAVY SUMMARY FY 1996 (Dollars in Millions)

				OBLIGA	TION TARGETS		TOTAL	00111171171	TADOLT
DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	OTHER	- TOTAL ( OBLIGATIONS	COMMITMEN TARGET	TARGET TOTAL
BP 14 ,		٠.							
Approved		0.0	0.0			0.0		0.0	0.0
Request	1,144.4	68.4	68.4			0.0		0.0	65.8
Delta	1,144.4	68.4	68.4	65.8	0.0	0.0	<b>6</b> 5.8	0.0	65.8
BP 15									
Approved	0.0	0.0	0. <b>0</b>	0.0	<b>0</b> .0	0.0		0.0	0.0
Request	17.5	10.2	10.2	10.9	0.0	0.0		0.0	10.9
Delta	17.5	10.2	10.2	10.9	0.0	0.0	10.9	0.0	10.9
BP21									
Approved	0.0	0.0	0.0	0.0	<b>0</b> .0	0.0		0.0	0.0
Request	58.6	192.7	192.7	187.8	0.0	0,0		0.0	187.8
Delta	58.6	192.7	192.7	187.8	<b>0</b> .0	0.0	187.8	0.0	187.8
BP 23									
Approved	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Request	50.1	49.0	49.0	38.6	0.0	0.0	38.6	0.0	38.6
Delta	50.1	49.0	49.0	38.6	0.0	0.0	38.6	0.0	38.6
BP 25									
Approved	0.0	0.0	<b>0</b> .0	0.0	0.0	0.0	0.0	0.0	0.0
Request	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Delta	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
BP 28									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,149.2	1,192.5	1,190,9	1,117.7	0.0	0.0	1,117.7	0.0	1,117.7
Delta	1,149.2	1,192.5	1,190.9	1,117.7	0.0	0.0	1,117.7	0.0	1,117.7
BP 34	.,.			Ť					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,223.6	244.0	273,1	187.9	0.0	0.0	187.9	0.0	187.9
Delta	1,223.6	244.0	273.1	187.9	0.0	0.0	187.9	0.0	187.9
BP 38									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	215.2	994.5	994.5	1,005.5	0.0	0.0	1,005.5	0.0	1,005.5
Delta	215.2	994.5	994.5	1,005.5	0.0	0.0	1,005.5	0.0	1,005.5
BP 54									
Approved	0.0	0.0	<b>0</b> .0	0.0	0.0	0.0	0.0	0.0	0.0
Request	29.6	12.2	12.4	2.0	0.0	0.0	2.0	0.0	2.0
Delta	29.6	12.2	12.4	2.0		0.0	2.0	0.0	2.0
BP 81									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	5,670.1	503.5	503.5	314.7		0.0	314.7	0.0	314.7
Delta	5,670.1	503.5	503.5	314.7		0.0	314.7	0.0	314.7
BP 84	-,		REPAIR->	194.7					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	329.9	53.9	58.1	41.4		0.0	41.4	0.0	41.4
Delta	329.9	53.9	58.1	41.4	0.0	0.0		0.0	41.4
BP85	023.5		REPAIR->	13.1					
Approved	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Request	13,516.6	1,979.3	2,138.5		0.0	0.0		0.0	1.363.1
Delta	13,516.6	1,979.3	2,138.5			<b>0</b> .0		0.0	1,363.1
BP 91	10,010.0	1,07 0.0	REPAIR->	853.4		4.0	1,000.1	2.0	.,
Approved	0.0	0.0	0.0			0.0	0.0	0.0	0.0
Request		0.0	0.0			0.0		0.0	1,080.7
	0.0		0.0	•		0.0	•	0.0	1,080.
Delta	0.0	0.0	0.0	1,000.7	0.0	0.0	1,000.7	0.0	1,000.7
TOTAL		0.0	^^			0.0	0.0	0.0	0.0
Approved		0.0	0.0			0.0			5,417.1
Request	23,404.8	5,301.2	5,492.3			0.0		0.0	
Delta	23,404.8	5,301.2	5,492.3	5,417.1	0.0	0.0	5,417.1	0.0	5,417.1

NAVY SUMMARY FY 1997 (Dollars in Millions)

-	OBLIGATION TARGETS									
	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	OTHER	OBLIGATIONS	TARGET	TARGET TOTAL	
BP 14									•	
Approved	0.0	0.0	0.0	0.0	. 0.0	0.0	0.0	0.0	0.0	
Request	1,248.9	82.0	82.0	80.6	0.0	0.0	80.6	0.0	80.	
Delta	1,248.9	82.0	82.0	80.6	0.0	0.0	80.6	0.0	80.	
BP 15										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	` 0.0	0.0	
Request	14.5	9.9	9.9	10.4	0.0	0.0	10.4	0.0	10.	
Delta	14.5	9.9	9.9	10.4	0.0	0.0	10.4	0.0	10.	
BP 21										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	58.4	191.7	191.7	188.1	0.0	0.0	188.1	0.0	188.	
Delta	58.4	191.7	191.7	188.1	0.0	0.0	188.1	0.0	188.	
BP 23										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	35.8	51.9	51.9	39.0	0.0	0.0	39.0	0.0	39.0	
Deta	35.8	51.9	51.9	39.0	0.0	0.0	39.0	0.0	39.0	
BP 25										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0	
Delta	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0	
3P 28										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	1,059.5	1,128.2	1,128.0	1,064.0	0.0	0.0	1,064.0	0.0	1,064.0	
Delta	1,059.5	1,128.2	1,128.0	1,064.0	0.0	<b>0</b> .0	1,064.0	0.0	1,064.0	
3P 34										
Approved	0.0	_0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	1,257.0	273.2	264.4	185.2	0.0	0.0	185.2	0.0	185.2	
Delta	1,257.0	273.2	264.4	185.2	0.0	0.0	185.2	0.0	185.2	
3P 38										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	221.7	958.1	958.1	960.9	0.0	0.0	960.9	0.0	960.9	
Delta	<b>22</b> 1.7	958.1	958.1	960.9	0.0	0.0	960.9	0.0	960.9	
3P 54										
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	22.2	9.9	10.0	2.0	0.0	0.0	2.0	0.0	2.0 2.0	
Delta 3P 81	22.2	9.9	10.0	2.0	0.0	0.0	2.0	0.0	2.0	
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	5,878.9	611.1	611.1	294.0	0.0	0.0	294.0	0.0	294.0	
Delta	5.878.9	611.1	611.1	294.0	0.0	0.0	294.0	0.0	294.0	
P 84	3,076.9		REPAIR->	195.7	0.0	U.U	254.0	0.0	254.0	
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	312.4	50.1	<b>5</b> 0.1	37.4	0.0	0.0	37.4	0.0	37.4	
Delta	312.4	50.1	50.1	37.4	0.0	0.0	37.4	0.0	37.4	
P85	312.7		REPAIR->	13.6	0.0	0.0	57.4	0.0	57.4	
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	13,545.0	2,204.6	2,199.0	1,222.7	0.0	0.0	1,222.7	0.0	1,222.7	
Delta	13,545.0	2,204.6	2,199.0	1,222.7	0.0	0.0	1,222.7	0.0	1,222.7	
P 91	10,040.0	E-p2-0-7-0	REPAIR->	759.2	0.0	<b>V.</b> U	1	0.0	.,	
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Request	0.0	0.0	0.0	1,063.5	0.0	0.0	1,063.5	0.0	1,063.5	
Delta	0.0	0.0	0.0	1,063.5	0.0	0.0	1,063.5	0.0	1,063.5	
OTAL	0.0	0.0	0.0	1,000.0	U.U	<b>U.U</b>	.,000	0.0	.,000.0	
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
White Capity						0.0			5,14 <b>8</b> .8	
Request	23,654.3	5,571.7	5,557 <i>.</i> 2	5,148.8	0.0		5,148.8	0.0	~ 1422	

# DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 14 OPERATING OBLIGATIONS BY WEAPON SYSTEM SF-3B ATTACHMENT FY 1995

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WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAM	TOTAL
AIR COND, REF, LIFE SUPPORT SYS	0.6			0.6
AIR/AIR MISSILES	6.3			6.3
AIR/GROUND MISSILES	0.3	4		0.3
AN/BSY-1	0.1			0.1
AN/SPS-48	0.7			0.7
AN/USC-38	0.1			0.1
AVIATION GUNS	0.2			0.2
AVIONICS	0.2			0.2
BASE, MOBILE + LOX	0.5			0.5
CIWS, MK-16 PHALANX	3.4		1.6	5.0
CRYPTO	0.4			0.4
DAMAGE CONTROL	3.6		1.1	4.7
DECK REPLN & WEAP HDLG EQUIP	0.9			0.9
DSSP	0.1	0.4		0.5
ELECTRIC POWER DIST	2.3			2.3
EOD, DIVING, SPEC WARFARE	3.4			3.4
ESM SYSTEM GAGES	0.2			0.2
GUN MOUNT 5'/54	0.1			0.1
GUNS	0.8		-	0.8
HARPOON MISSILE	0.1 0.1			0.1
HELO LANDING SYS	0.1			0.1
INTERNAL COMMUN AN/UNQ-7	0.1			0.1 0.1
LM 2500	2.9			2.9
LOAD LISTS	2.5		1.6	1.6
LOMIX			1.0	1.0
MINES/MINESWEEPING EQUIP	0.5		1.0	0.5
MISC 2D RADAR	0.1			0.5
MISC SUB SONAR EQUIP	0.5			0.5
MISC TEST EQUIP	0.8			0.8
MISCELLANEOUS	0.0	0.2	3.4	3.6
MK 46 TORPEDO	0.8	0.2	<b>Q.</b> -	0.8
MK 48 TORPEDO	2.6			2.6
MK 50 TORPEDO	0.3			0.3
MK 75 GUN MOUNT	0.5			0.5
MK 86 GFCS	0.4			0.4
NAVIGATIONAL CONVENTIONAL	0.2			0.2

NUCLEAR	20.0	13.3		33.3
ORDNANCE HANDLING	0.8			0.8
OSI MAINTENANCE	0.0		1.5	1.5
PERISCOPE	0.4			0.4
PROPS/SHAFT CONTROL	0.4			0.4
PUMPS, COMPRESSORS, BEARINGS	3.1			3.1
· · · · · · · · · · · · · · · · · · ·	0.2			0.2
SATCOM	0.2		2.3	
SEOC MSP		:	2.3	2.3
SHIP BOILERS	1.5			1.5
SHIP COMMUNICATIONS	0.2			0.2
SHIP DIESEL ENGINES	0.4			0.4
SHIP GAS TURBINES	0.9			0.9
SHIP HABITABILITY	0.6			0.6
SHIPALT		0.9	5.2	6.1
SHORE COMMUNICATIONS	0.1			0.1
SLQ-32	0.1			0.1
SMALL ARMS	0.1			0.1
SNAP 1	0.1			0.1
STEAM TURBINE GENERATORS	0.6			0.6
STRATEGIC SUBMARINE PL			0.9	0.9
SUB ARMAMENT & ELEC	0.2			0.2
SUB AUX SYSTEM	1.2			1.2
SUB COMM &DATA PRO	0.7			0.7
SUB PROPULSION	0.2			0.2
SUB SHIP CONTROL EQUIP	0.2			0.2
SUBSAFE LEVEL I	6.1			6.1
SURFACE SONAR	0.1			0.1
SWS	0.4			0.2
TARTAR MISSILE	0.4			
TRIREFFAC LOAD LIST	0.7		0.1	0.7
UNASSIGNED WEAPON SYS	0.0		2.1	2.1
VALVES	0.2	•		0.2
	2.6			2.6
WSC-3	0.2			0.2
GROSS REQUIREMENT	77.1	14.8	20.7	112.6
GITOGO I LOGOII LIMEITI	77.1	14.0	20.7	112.0
ASSET OFFSET		-3.3		-3.3
CREDIT MODS	-5.2	-0.6		-5.8
CONTRACT TERMINATIONS	-2.6	-0.3		-2.9
EFFICIENCIES/PROGRAM ADJUST	-0.4	-4.1	-20.7	-25.2
BOSS	-3.4	-0.6		-4.0
SUBTOTAL	65.5	5.9	0.0	71.4
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK	<del></del>	- · ·	3.5	2.0
PROVISIONING SELLDOWN				1.0
				1.0
TOTAL				74.4
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#### DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 14 OPERATING OBLIGATIONS BY WEAPON SYSTEM (\$M SF-3B ATTACHMENT FY 1996

,	BASIC	:	SPECIAL	
WEAPON SYSTEM		OUTFTG	PROGRAM:	TOTAL
AIR COND, REF, LIFE SUPPORT SYS	0.2			0.2
AIR/AIR MISSILES	0.9			0.9
AIR/GROUND MISSILES	0.1	4		0.1
AN/BSY-1	0.1			0.1
AVIONICS	0.1			0.1
BASE, MOBILE & LOX	0.1			0.1
BLEED AIR VALVE	0.1			0.1
CIWS, MK-16 PHALANX	0.6		1.0	1.6
DAMAGE CONTROL	1.4		3.5	4.9
DECK REPLN & WEAP HDLG EQUIP	0.3			0.3
DSSP SUSCEPTION DOWER BUST	0.1	0.5		0.6
ELECTRIC POWER DIST	0.7			0.7
EOD, DIVING, SPEC WARFARE	1.1			1.1
ESM SYSTEM	0.1			0.1
GUN MOUNT 5'/54	0.1			0.1
LM 2500	1.4		0.0	1.4
LOAD LISTS			2.2	2.2
LOMIX MINES/MINESWEEPING EQUIP	0.1		1.0	1.0 0.1
MISC SUB SONAR EQUIP	0.1			0.1
MISC TEST EQUIP	0.1			0.1
MK 46 TORPEDO	0.3			0.3
MK 48 TORPEDO	0.4			0.4
MK 50 TORPEDO	0.0			0.0
MK 75 GUN MOUNT	0.1			0.1
MK 86 GFCS	0.1			0.1
NAVIGATION(ELECTRONIC)	0.1			0.1
NAVIGATIONAL CONVENTIONAL	0.1			0.1
NUCLEAR	20.6	13.5		34.1
ORDNANCE HANDLING	0.2	10.5		0.2
OSI MAINTENANCE	0.2		1.5	1.5
PERISCOPE	0.1		1.5	0.1
PM MISC	0.1		0.8	0.1
PROPS/SHAFT CONTROL	0.1		0.0	0.5
PUMPS, COMPRESSORS, BEARINGS	0.7			0.7
SEOC MSP	0.7		2.6	2.6
SHIP BOILERS	0.4		2.0	0.4
UIII DUILLIU	∪.→			U. <del>T</del>

SHIP COMMUNICATIONS SHIP DIESEL ENGINES SHIP GAS TURBINES SHIP HABITABILITY SHIPALT	0.1 0.1 0.2 0.1	0	4.1	0.1 0.1 0.2 0.1 4.5
SNAP 1	0.1			0.1
STEAM TURBINE GENERATORS	0.2			0.2
STRATEGIC SUBMARINE PL		:	0.9	0.9
SUB ARMAMENT & ELEC	0.1			0.1
SUB AUX SYSTEM	0.5		٠.	0.5
SUB COMM & DATA PRO	0.6			0.6 0.1
SUB PROPULSION	0.1 0.1			0.1
SUB SHIP CONTROL EQUIP SUBMARINE COMMUNICATIONS	0.1			0.1
SUBMARINE COMMUNICATIONS SUBMARINE SONAR	0.3	4		0.5
SUBSAFE LEVEL 1	6.3			6.3
SWS CODE 84	0.1			0.1
TARTAR MISSILE	0.1			0.1
TRIREFFAC LOAD LIST			2.1	2.1
UNASSIGNED WEAPON SYS	0.2			0.2
VALVES	1.0			1.0
WATER DRIVEN BLOWERS			0.2	0.2
CARPER			16.8	16.8
GROSS REQUIREMENT	41.9	14.4	36.7	93.0
EFFICIENCIES/PROGRAM ADJUSTMENTS	-0.5	-3.9	-17.0	-21.4
ASSET OFFSET		-3.5		-3.5
CREDIT MODS	-2.2	-0.4	-0.2	-2.8
BOSS	-1.7	-0.6	-0.2	-2.5
CONTRACT TERMINATIONS	-0.7	-0.1	-0.1	-0.9
SUBTOTAL	36.8	5.9	19.2	61.9
PROVISIONING SELLDOWN				3.9
TOTAL				65.8

#### DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 14 OPERATING OBLIGATIONS BY WEAPON SYSTEM (\$M SF-3B ATTACHMENT FY 1997

,		:	0750141	
WEADON CYCTEM	BASIC	OUTETG	SPECIAL PROGRAM!	TOTAL
WEAPON SYSTEM	NEFLEIN	OUTFIG	LUCCIDAIAN	IOIAL
AIR COND, REF, LIFE SUPPORT SYS	0.1			0.1
AIR/AIR MISSILES	0.6			0.6
AN/BSY-1	0.1	٠.		0.1
AVIONICS	0.1	٠		0.1
BASE, MOBILE & LOX	0.1		•	0.1
BLEED AIR VALVE	0.1			0.1
CIWS, MK-16 PHALANX	0.4		1.0	1.4
DAMAGE CONTROL	1.0		3.5	4.5
DECK REPLN & WEAP HDLG EQUIP	0.2			0.2
DSSP	0.1	0.7		8.0
ELECTRIC POWER DIST	0.5			0.5
EOD, DIVING, SPEC WARFARE	0.8			8.0
GUN MOUNT 5'/54	0.1			0.1
LM 2500	0.9			0.9
LOAD LISTS			2.2	2.2
LOMIX			1.0	1.0
MINES/MINESWEEPING EQUIP	0.1			0.1
MISC TEST EQUIP	0.2			0.2
MK 46 TORPEDO	0.3			0.3
MK 48 TORPEDO	0.4			0.4
MK 50 TORPEDO	0.1			0.1
MK 75 GUN MOUNT	0.1			0.1
MK 86 GFCS	0.1			0.1
NAVIGATION(ELECTRONIC)	0.2			0.2
NAVIGATIONAL CONVENTIONAL	0.1			0.1
NUCLEAR	21.2	12.6		33.8
ORDNANCE HANDLING	0.1			0.1
OSI MAINTENANCE			1.5	1.5
PERISCOPE	0.1			0.1
PM MISC .			8.0	8.0
PROPS/SHAFT CONTROL	0.1			0.1
PUMPS, COMPRESSORS, BEARINGS	0.5			0.5
SEOC MSP			2.6	2.6
SHIP BOILERS	0.3			0.3
SHIP COMMUNICATIONS	0.1			0.1
SHIP DIESEL ENGINES	0.1			0.1
SHIP GAS TURBINES	0.1			0.1

SHIP HABITABILITY SHIPALT	0.1	0.4	4.1	0.1 4.5
STEAM TURBINE GENERATORS	0.1			0.1
STRATEGIC SUBMARINE PL	0.4		0.9	0.9
SUB ARMAMENT & ELEC	0.1			0.1
SUB AUX SYSTEM	0.3			0.3
SUB COMM & DATA PRO	0.4			0.4
SUB PROPULSION	0.1 0.1			0.1 0.1
SUB SHIP CONTROL EQUIP	0.1		**	0.1
SUBMARINE SONAR SUBSAFE LEVEL I	6.5			6.5
SWS CODE 84	0.5 0.1			
	0.1			0.1
TARTAR MISSILE	0.1		0.4	0.1
TRIREFFAC LOAD LIST	0.4	A.	2.1	2.1
UNASSIGNED WEAPON SYS	0.1			0.1
VALVES	0.7			0.7
WATER DRIVEN BLOWERS			0.2	0.2
CARPER			34.1	34.1
GROSS REQUIREMENT	38.1	13.7	54.0	105.8
EFFICIENCIES/PROGRAM ADJUST	-1.2	-1.8	-19.8	-22.8
ASSET OFFSET		-3.7		-3.7
CREDIT MODS	-0.8	-0.1		-0.9
BOSS	-1.5	-0.6	-0.1	-2.2
CONTRACT TERMINATIONS	-0.8	-0.1		-0.9
SUBTOTAL	33.8	7.4	34.1	75.3
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK	JJ.4	* * *	<b>V</b> -111	3.6
PROVISIONING SELLDOWN				1.7
TOTAL				80.6

# DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 81 OPERATING OBLIGATIONS BY WEAPON SYSTEM (\$M) SF-3B ATTACHMENT FY 1995

	BASIC		SPECIAL		
WEAPON SYSTEM	REPLEN	OUTFTG	PROGRAMS	REWORK	TOTAL
,			•	4.0	4 **
ACLS	0.5 0.3			1.2 0.7	1.7 1.0
ADVANCE SIGNAL PROCESSOR	0.3	6.0		0.7	6.0
ADVD SEAL DELIVERY SYSTEM	2.4	13.9		5.9	22.2
AEGIS		13.9		8.0	12.8
AIR COND, REF, LIFE SUPPORT SYS	4.8			2.1	2.1
AIRCRAFT CARRIER CAT COVER	0.6		,	2.1	2.7
AIR/AIR MISSILES	0.6		\$	0.5	1.2
AIR/GROUND MISSILES	0.7			0.3	0.2
ANDVT, JTIDS AN/BSY-1	0.1			0.2	1.0
AN/BSY-2	0.1	5.9		0.6	6.5
AN/SLQ-25		1.1		0.0	1.1
AN/SPS-40,10,29,37 AN/BPS,AN/SSF	0.2	1.1		1.5	1.7
AN/SPS-48	0.2			1.5	1.8
AN/SPS-52	0.5			0.2	0.2
AN/SPS-55, 63 RADAR	0.1			1.8	1.9
AN/SQQ-32	<b>U.</b> 1	3.4		1.0	3.4
AN/SQQ-89	0.2	4.6		1.0	5.8
AN/SRQ-4	U.L	0.8		1.0	0.8
AN/SYQ-17		1.1			1.1
AN/SYQ-18		2.8			2.8
AN/URC-107(V)7 JTIDS		7.8			7.8
AN/USC-38(V)	2.3	0.6		2.3	5.2
AN/USQ-101	2.0	1.0		2.0	1.0
AN/USQ-82(V)	0.1	1.4		0.9	2.4
AN/UYA-4	• • • • • • • • • • • • • • • • • • • •	••-		1.7	1.7
AN/UYK-43(V)B		0.4		0.4	0.8
AN/UYK-44	0.1			0.5	0.6
AN/UYQ-21	0.1	3.4		1.0	4.5
AVIATION GUNS	0.1			0.3	0.4
AVIONICS	3.9			2.1	6.0
BLEED AIR VALVE	0.4			0.5	0.9
BQQ5 & 6 SONAR	0.1	0.4		0.6	1.1
CALIBRATION STANDARDS		3.2			3.2
CFEE	0.1			1.4	1.5
CIWS	2.5	8.5	14	8.8	34.0
CODE OOD	0.6			1.3	1.9
COMMON COMPUTERS	0.3			2.0	2.3
CRYPTO				1.3	1.3
DAMAGE CONTROL	0.2		1	1.3	2.5
DECK REPLN & WEAP HDLG EQUIP	<b>0</b> .6			4.6	5.2
DSSP	0.2	1.5		1.3	3.0
ELECTRIC POWER DIST	2.0			2.2	4.2
ELECTRONIC SURVEILLANCE	0.3			1.1	1.4
EOD, DIVING SPEC WARFARE	0.4			2.4	2.8
ESGN SYSTEM	0.6			10.6	11.2
ESM SYSTEM	0.9			2.4	<b>3</b> .3
GAGES				0.1	0.1
GPETE	0.3	20.5		0.9	21.7
GUN MOUNT 5'/54	0.7			0.3	1.0

GUNS	0.4			0.3	0.4 0.3
HARPOON MISSILE	0.4			1.4	1.7
HELO LAND SYSTEM	0.1	0.2		1.4	0.1
ICSS 05121	0.1			0.2	1.0
ICSS 05122	0.8			0.2 1.5	1.7
INTERNAL COMMUN, AN/UNQ-7	0.2				13.5
LM 2500	1.9		4	11.6	13.5
LOAD LIST	•		1 2		2.3
LO-MIX				0.9	2.3 0.9
MATCS	0.3		:	0.9	0.5
METEOROLOGICAL	0.3 0.6			0.2	0.5
MILITARY SEALIFT COMMAND	0.3			0.6	0.9
MINES/MINESWEEPING EQUIP	0.3			0.8	0.8
MISC 2D RADAR MISC SUB SONAR EQUIP	0.4			3.4	3.8
	0.4			0.6	0.7
MISC TEST EQUIP	0.1	13.1	9	0.0	15.4
MISCELLANEOUS MK 46 TORPEDO	0.1	13.1	<sub>€e</sub> -2	0.2	0.3
MK 48 TORPEDO	1.6			5.3	6.9
MK 50 TORPEDO	0.2			1.0	1.2
MK 68 GFCS	. 0.2			0.1	0.1
MK 75 GUN MOUNT				0.1	0.1
MK 86 GFCS	1.9			3.5	5.4
MK 92 GFCS	1.2		2	6.4	9.4
MK-41 VLS	0.6	2.9	~	1.3	4.8
MK57	0.0	1.0		1.5	1.0
NATO SEASPARROW MISSILE	0.1	1.0		3.9	4.0
NAVIGATIONAL CONVENTIONAL	0.5			1.7	2.2
NAVIGATION(ELECTRONIC)	1.4			5.0	6.4
NAVSTAR GPS	0.5			0.0	0.5
NCCS	0.1			0.4	0.5
NEW CONSTRUCTION SCHEDULE A	<b></b>		3	•	2.5
NON FBM NAVIGATION	. 0.3		_	1.0	1.3
NSF FOR ACQ OF TECH DATA			0		0.1
NSF FOR REVERSE ENG.			0		0.2
NUCLEAR SUPPORT	1.9	1.1		0.5	3.5
OCEAN SURVEILLANCE				0.5	0.5
ORDNANCE HANDLING				0.1	0.1
OSI MAINTENANCE			10		9.7
OTHER GFCS	0.1				0.1
PERISCOPE	1.0	2.9		3.8	7.7
PROPS/SHAFT CONTROL	3.2			1.6	4.8
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	1.2			4.2	5.4
RADIAC				0.3	0.3
RAM	0.2				0.2
RD-358A			_	0.2	0.2
RELIABILITY/MAINTAINABILITY			2		2.0
REVERSE OSMOSIS DESALINATOR			2	4.0	1.6
SATCOM	0.9			1.3	2.2
SHIP BOILERS	0.8	0.7		0.7	1.5
SHIP COMMUNICATIONS SHIP DIESEL ENGINES	1.6	0.7		2.8 1.6	5.1 2.6
	1.0				
SHIP GAS TURBINES SHIP HABITABILITY	1.5			4.2 0.1	5.7 0.1
SHIPALT		0.7	4	U. I	4.9
SHORE COMMUNICATION	0.2	V,1	7	0.1	0.3
SINS/DMINS	0.2 0.1			2.5	2.6
SLQ-32	0.1	1.3		2.5	4.1
SMALL ARMS	0.4			1.6	2.0
WITH HOSE IN HITE	V			1.0	£.U

SNAP 1				2.0	2.0
SNAP 2				1.2	1.2
SPG 51				1.1	1.1
SPG 55	0.3			0.5	0.8
STEAM TURBINE GENERATORS	6.1			0.6	6.7
STRATEGIC SUBMARINE PL			3		2.9
SUB ARMAMENT & ELEC	0.3			1.4	1.7
SUB AUX SYSTEM	0.8			6.0	6.8
SUB COMM & DATA PRO	1.0			4.3	5.3
SUB PROPULSION	0.1		:	2.1	2.2
SUB SHIP CONTROL EQUIP	0.2			2.3	2.5
SUBMARINE FCS	0.6			0.6	1.2
SUBMARINE SONAR				0.2	0.2
SUBSAFE LEVEL I	1.0			1.4	2.4
SURFACE ASW FCS				0.1	0.1
SURFACE REWSON	0.3			0.1	0.4
SURFACE SONAR	0.4		4	2.1	2.5
SVTT MK32	0.4			0.1	0.1
TACTICAL DISPLAY				0.3	0.3
TARTAR MISSILE	1.7			2.0	3.7
TAS MK23	0.1	0.7		1.1	1.9
TECHNICAL REFERRALS	<b>U.</b> 1	0.,	4.3	1.1	4.3
TELETYPE	0.1		4.0	1	0.7
TOMAHAWK	<b>U.</b> 1			0.5	0.7
TRIREFFAC LOAD LIST			3.2	0.5	3.2
UNASSIGNED WEAPON SYS	4.1		U.E	0.2	4.3
URT-23	7.1			1.4	1.4
VALVES	0.2			0.4	0.6
WSC-3	0.2	0.5		1.9	2.4
WSC-6	0.6	0.5		0.5	1.1
	0.0			0.5	1.1
GROSS REQUIREMENT	73.0	113.4	53.7	196.3	436.4
CONTRACT TERMINATION					
CONTRACT TERMINATION	-5.9	-6.7	-2.3		-14.9
EFFICIENCIES/PROGRAM ADJUST	-1.0	-32.7	-21.6	-0.1	-55.4
BOSS SAVINGS	-3.7	-6.2	-2.9		-12.8
ASSET OFFSET	4= -	-14.7			-14.7
CREDIT MODS	-17.0	-17.8	-6.3	-10.0	-51.1
SUBTOTAL	45.4	<b>3</b> 5.3	20.6	186.2	287.5
PROVISIONING SELLDOWN					6.6
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK					16.3
TOTAL					310.4

#### DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 81 OPERATING OBLIGATIONS BY WEAPON SYSTEM (\$M) SF-3B ATTACHMENT FY 1996

	BASIC		SPECIAL		
WEAPON SYSTEM	REPLEN	OUTFTG	PROGRAMS	REWORK	TOTAL
ACLS	0.1		•	1.2	1.3
ADVANCE SIGNAL PROCESSOR	0.1			0.7.	8.0
ADVD SEAL DELIVERY SYSTEM		12.0		•	12.0
AEGIS	2.2	1.6		6.9	10.7
AIR COND, REF, LIFE SUPPORT SYS	0.8			7.1	7.9
AIRCRAFT CARRIER CAT COVER			<b>5.</b> 3		5.3
AIR/AIR MISSILES	0.2		,·	1.9	2.1
AIR/GROUND MISSILES	0.1		٥	0.6	0.7
ANDVT, JTIDS				0.2	0.2
AN/BSY-1	0.3	2.8	•	0.9	4.0
AN/BSY-2				0.5	0.5
AN/SPQ-9		1.3			1.3
AN/SPS-40,10,29,37,43	1.0			1.9	2.9
AN/SPS-48	1.5	0.6		1.9	4.0
AN/SPS-52	0.1			0.2	0.3
AN/SPS-55, 63 RADAR	0.1			2.1	2.2
AN/SQQ-32		2.2			2.2
AN/SQQ-89	0.2	2.9		1.0	4.1
AN/SWG-3		1.9			1.9
AN/SYQ-18		1.8			1.8
AN/URC-107(V)7 JTIDS		6.3			6.3
AN/USC-3B(V)	0.9	2.5		2.3	5.7
AN/USQ-101		0.9			0.9
AN/USQ-82(V)	0.2	1.4		0.7	2.3
AN/UYA-4	0.3			2.0	2.3
AN/UYK-43(V)B	0.2	0.4		0.5	1.1
AN/UYK-44	0.2			0.5	0.7
AN/UYQ-21	0.2			1.2	1.4
AUTO DIGITAL ACQ SUBSYSTEM		4.6			4.6
AVIATION GUNS	0.1			0.3	0.4
AVIONICS	2.2			2.2	4.4
BLEED AIR VALVE	0.2			0.6	0.8
BQQ5 SONAR	0.1	1.6		0.7	2.4
CALIBRATION STANDARDS		3.3			3.3
CFEE	0.4		0.4	1.8	2.2
CIWS	2.1	7.2	14.8	9.1	33.2
CODE OOD	1.7			1.4	3.1
COMMON COMPUTERS	0.1			2.4	2.5
COMMON DISPLAY CONSOLE		1.4			1.4
CRYPTO	0.1			1.5	1.6
DAMAGE CONTROL				1.1	1.1
DECK REPLN & WEAP HDLG EQUIP	0.8			3.6	4.4
DSSP	0.2	1.4		1.3	2.9
ELECTRIC POWER DIST	1.5			2.7	4.2
ELECTRONIC SURVEILLANCE	0.2			1.4	1.6
EOD, DIVING SPEC WARFARE	1.5			2.5	4.0
ESGN SYSTEM	0.1			10.1	10.2
ESM SYSTEM	0.4			2.9	3.3
GAGES				0.2	0.2
GMLS MK26		0.9			0.9

GPETE	0.3	21.7		0.8	22.8
GUN MOUNT 5'/54	0.2			0.4	0.6
GUNS				0.1	0.1
HARPOON MISSILE				0.3	0.3
HELO LANDING SYSTEM	0.2	0.8		1.5	2.5
ICSS 05122	0.1			0.2	0.3
INTERNAL COMMUN, AN/UNQ-7	0.4			1.7	2.1
	2.0			11.8	13.8
LM 2500	2.0		0.6	11.0	
LOAD LIST			2.6		2.6
LO-MIX			: 1.0		1.0
MATCS	0.3			0.9	1.2
METEOROLOGICAL	0.1			0.2	0.3
MILITARY SEALIFT COMMAND				0.3	0.3
MINES/MINESWEEPING EQUIP	0.2			0.6	0.8
MISC 2D RADAR				0.8	0.8
MISC SUB SONAR EQUIP	2.3			3.8	6.1
MISC TEST EQUIP	0.3			0.5	0.8
MISCELLANEOUS	0.0	14.5	4.2	0.0	18.7
MK 46 TORPEDO		14.5	7-6-	0.2	0.2
MK 48 TORPEDO	2.7				
				5.8	8.5
MK 50 TORPEDO	0.5			1.1	1.6
MK 68 GFCS				0.1	0.1
MK 75 GUN MOUNT	0.1			0.3	0.4
MK 86 GFCS	3.9			4.2	8.1
MK 92 GFCS	0.5			7.2	7.7
MK49 GMLS		0.9			0.9
NATO SEASPARROW MISSILE	0.3			4.6	4.9
NAVIGATIONAL CONVENTIONAL	0.1			2.1	2.2
NAVIGATION(ELECTRONIC)	3.8			5.5	9.3
NAVSTAR GPS	0.2			5.5	0.2
NCCS	U.L			0.4	0.4
NON FBM NAVIGATION	0.1				
NSF FOR ACQ OF TECH DATA	0.1		- 4	1.0	1.1
			0.1		0.1
NSF FOR REVERSE ENG.			0.2		0.2
NUCLEAR SUPPORT	0.7	1.2		0.6	2.5
OCEAN SURVEILLANCE	0.1			0.5	0.6
ORDNANCE HANDLING	0.1			0.1	0.2
OSI MAINTENANCE			8.2		8.2
PERISCOPE	0.6	. 1.1		3.8	5.5
PROPS/SHAFT CONTROL	0.1			1.7	1.8
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	0.9			4.7	5.6
RADIAC	0.1			0.4	0.5
RELIABILITY/MAINTAINABILITY			2.0	<b>U.</b> .	2.0
SATCOM	4.2		2.0	1.6	5.8
SHIP BOILERS	1.0			0.9	
SHIP COMMUNICATIONS	1.4	4.9			1.9
SHIP DIESEL ENGINES		4.9		3.2	9.5
in the second se	0.6			1.9	2.5
SHIP GAS TURBINES	2.7			3.9	6.6
SHIP HABITABILITY				0.1	0.1
SHIPALT		0.4	2.5		2.9
SHORE COMMUNICATION	0.8	-		0.1	0.9
SINS/DMINS				2.6	2.6
SLQ-32	0.6	3.5		3.1	7.2
SMALL ARMS	0.5			1.6	2.1
SNAP 1	0.1			2.5	2.6
SNAP 2				1.1	1.1
SPG 51				1.4	1.1
SPG 55					
	0.0			0.5	0.5
STEAM TURBINE GENERATORS	0.2			0.6	0.8

STRATEGIC SUBMARINE PL			2.9		2.9
SUB ARMAMENT & ELEC	0.2			1.5	1.7
SUB AUX SYSTEM	0.6			5.9	6.5
SUB COMM &DATA PRO	1.2			4.4	5.6
SUB PROPULSION	0.3			2.0	2.3
SUB SHIP CONTROL EQUIP	0.4			2.7	3.1
SUBMARINE FCS				0.6	0.6
SUBMARINE SONAR	•			0.2	0.2
SUBSAFE LEVEL I	0.8			1.7	2.5
SURFACE ASW FCS	0.0		:	0.1	0.1
SURFACE REWSON				0.1	0.1
SURFACE SONAR	0.2			2.0	2.2
TACTICAL DISPLAY	0.1			0.4	0.5
TARTAR MISSILE	0.3			2.1	2.4
TAS MK23	0.5			1.0	1.5
TECHNICAL REFERRALS	0.0		4.3		4.3
TELETYPE	0.2		*	0.7	0.9
TOMAHAWK	0.2			0.5	0.7
TRIREFFAC LOAD LIST	J		3.2		3.2
UNASSIGNED WEAPON SYS	0.4		5,2	0.3	0.7
URT-23	0.6			2.0	2.6
VALVES	0.2			0.4	0.6
VLS	1.0	1.4		1.2	3.6
WSC-3	0.1	0.3		2.1	2.5
WSC-6	0.2	0.0		0.5	0.7
GROSS REQUIREMENT	61.2	109.7	51.3	206.2	428.4
CONTRACT TERMINATION	-5.4	-6.1	-3.2		-14.7
BOSS	-3.7	-6.2	-3.0		-12.9
EFFICIENCIES/PROGRAM ADJUSTMENT	-1.6	-33.1	-17.7	-1.5	-53.9
ASSET OFFSET		-16.4			-16.4
CREDIT MODS	-13.1	-12.3	-6.7	-10.0	-42.1
SUBTOTAL	37.4	35.6	20.7	194.7	288.4
PROVISIONING SELLDOWN					7.5
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK					18.8
TOTAL					314.7

# DEPARTMENT OF THE NAVY STOCK FUND BUDGET PROJECT 81 OPERATING OBLIGATIONS BY WEAPON SYSTEM (\$M) SF-3B ATTACHMENT FY 1997

	BASIC		SPECIAL		
WEAPON SYSTEM	REPLEN	OUTFTG	PROGRAMS	REWORK	TOTAL
WENG ON STOTEM		0011 (0	·	TIE WOTH	TOTAL
ACLS	0.1			1.2	1.3
ADVANCE SIGNAL PROCESSOR	0.1			· <b>0.</b> 7	0.8
ADVD SEAL DELIVERY SYSTEM		18.0			18.0
AEGIS	2.0	1.6		6.9	10.5
AIR COND, REF, LIFE SUPPORT SYS	0.7			7.1	7.8
AIR/AIR MISSILES	0.2			1.9	2.1
AIR/GROUND MISSILES	0.1		4,	0.5	0.6
AIRCRAFT CARRIER CAT COVER			5.3		5.3
AN/BSY-1	0.3	4.1		0.9	5.3
AN/BSY-2	•	5.9		0.5	6.4
AN/SPQ-9		0.7			0.7
AN/SPS-40,10,29,37,43	0.9			1.9	2.8
AN/SPS-48	1.3			1.9	3.2
ANSPS-52	0.1			0.2	0.3
AN/SPS-55, 63 RADAR	0.1			2.1	2.2
AN/SQQ-89 AN/SWG-3	0.2	2.8		1.0	4.0
ANSYQ-18		1.3			1.3
AN/URC-107(V)7 JTIDS		1.5			1.5
AN/USC-38(V)	0.0	10.6			10.6
AN/USC-42(V)	8.0	0.4		2.3	3.5
AN/USC-53(V)		1.0			1.0
AN/USQ-82(V)	0.2	1.0			1.0
ANUYA-4	0.2	0.5		0.7	1.4
AN/UYK-43(V)B	0.3			2.0	2.3
AN/UYK-44	0.1			0.5	0.6
AN/UYQ-21	0.2			0.5 1.2	0.7
ANDVT, JTIDS	0.2			0.2	1.4 0.2
AUTO DIGITAL ACQ SUBSYSTEM		3.8		0.2	3.8
AVIATION GUNS	0.1	0.0		0.3	0.4
AVIONICS	2.0			2.2	4.2
BLEED AIR VALVE	0.1			0.6	0.7
BQQ5 SONAR	0.1	1.9		0.7	2.7
CALIBRATION STANDARDS		3.7			3.7
CFEE	0.4			1.8	2.2
CIWS	1.9	3.1	14.8	9.1	28.9
CODE OOD	1.5			1.4	2.9
COMMON COMPUTERS	0.1			2.4	2.5
COMMON DISPLAY CONSOLE		0.9			0.9
CRYPTO	0.1			1.5	1.6
DAMAGE CONTROL				1.1	1.1
DECK REPLN & WEAP HDLG EQUIP	0.7	•		3.6	4.3
DSSP	0.2	1.4		1.3	2.9
ELECTRIC POWER DIST	1.4			2.7	4.1
ELECTRONIC SURVEILLANCE	0.2			1.4	1.6
EOD, DIVING SPEC WARFARE	1.4			2.5	3.9
ESGN SYSTEM	0.1			10.2	10.3
ESM SYSTEM	0.3			2.9	3.2
GAGES				0.2	0.2
GPETE	0.3	17.2		8.0	18.3

	_				0.6
GUN MOUNT 5/54	0.2			0.4 0.1	0.6 0.1
GUNS				0.3	0.3
HARPOON MISSILE	0.2			1.5	1.7
HELO LANDING SYSTEM ICSS 05122	0.2			0.2	0.3
INTERNAL COMMUN, AN/UNQ-7	0.4			1.7	2.1
LM 2500	1.8			11.8	13.6
LO-MIX	1.0		1.0		1.0
LOAD LIST			2.6		2.6
MAG SECURITY SYSTEM	•	1.2			1.2
MATCS	0.3	***		0.9	1.2
METEOROLOGICAL	0.1			0.2	0.3
MILITARY SEALIFT COMMAND				0.3	0.3
MINES/MINESWEEPING EQUIP	0.1			0.6	0.7
MISC 2D RADAR				0.8	0.8
MISC SUB SONAR EQUIP	2.1			3.8	5.9
MISC TEST EQUIP	0.3			0.5	0.8
MISCELLANEOUS		6.0	4.2		10.2
MK 105 UPGRADE		0.8			0.8
MK 46 TORPEDO				0.2	0.2
MK 48 TORPEDO	2.4			5.8	8.2
MK 50 TORPEDO	0.4			1.2	1.6
MK 68 GFCS				0.1	0.1
MK 75 GUN MOUNT	0.1			0.3	0.4
MK 86 GFCS	3.5			4.2	7.7
MK 92 GFCS	0.4			7.2	7.6
NATO SEASPARROW MISSILE	0.2			4.6	4.8
NAVIGATION(ELECTRONIC)	3.4			5.5	8.9
NAVIGATIONAL CONVENTIONAL	0.1			2.1	2.2
NAVSTAR GPS	0.2				0.2
NAVY TACTICAL INPUT SEGMENT		2.1			2.1
NCCS				0.4	0.4
NON FBM NAVIGATION	0.1			1.0	1.1
NSF FOR ACQ OF TECH DATA			0.1		0.1
NSF FOR REVERSE ENG.			0.2		0.2
NUCLEAR SUPPORT	0.7	1.1		0.6	2.4
OA-9070A		1.6			1.6
OCEAN SURVEILLANCE	0.1			0.5	0.6
ORDNANCE HANDLING	0.1	•		0.1	0.2
OSI MAINTENANCE			8.2		8.2
PERISCOPE	0.6	1.0		3.8	5.4
PROPS/SHAFT CONTROL	0.1			1.8	1.9
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	0.8			4.7	5.5
RADIAC	0.1			0.4	0.5
RELIABILITY/MAINTAINABILITY		40.7	2.0	4 =	2.0
SATCOM	3.8	12.7		1.7	18.2
SHIP BOILERS	0.9	0.0		0.9	1.8
SHIP COMMUNICATIONS	1.2	3.0		3.2	7.4
SHIP DIESEL ENGINES	0.6			1.9	2.5
SHIP GAS TURBINES	2.4			3.9	6.3
SHIP HABITABILITY		0.4	2.5	0.1	0.1 2.9
SHIPALT SHORE COMMUNICATION	0.7	0.4	2.5	0.1	2.9 0.8
SINS/DMINS	U. /			0.1 2.6	0.8 2.6
SLQ-32	0.5	0.6		2.6 3.1	2.6 4.2
SMALL ARMS	0.4	U.D		1.6	4.2 2.0
SNAP 1	0.4			2.5	2.0 2.6
SNAP 2	U. 1			1.1	1.1
SPG 51				1.4	1.4
~· ~ ~ ·				• • •	•••

SPG 55				0.5	0.5
STEAM TURBINE GENERATORS	0.2			0.6	0.8
STRATEGIC SUBMARINE PL			2.9		2.9
SUB ARMAMENT & ELEC	0.2			1.6	1.8
SUB AUX SYSTEM	0.5			5.9	6.4
SUB COMM &DATA PRO	1.0			4.5	5.5
SUB PROPULSION	0.2			2.0	2.2
SUB SHIP CONTROL EQUIP	0.4			2.7	3.1
SUBMARINE FCS	•		:	0.6	0.6
SUBMARINE SONAR			•	0.2	0.2
SUBSAFE LEVEL I	. 0.7			1.7	2.4
SURFACE ASW FCS				0.1	0.1
SURFACE REWSON				0.1	0.1
SURFACE SONAR	0.1	_		2.1	2.2
TAC-3		0.9			0.9
TACTICAL DISPLAY	0.1			0.4	0.5
TARTAR MISSILE	0.3		**	2.1	2.4
TAS MK23	0.4			1.0	1.4
TECHNICAL REFERRALS			4.3		4.3
TELETYPE	0.2			0.7	0.9
THERMAL IMAGING SENSOR SYS		1.0			1.0
TOMAHAWK	0.2			0.5	0.7
TRIREFFAC LOAD LIST			3.2		3.2
UNASSIGNED WEAPON SYS URT-23	0.3			0.3	0.6
VALVES	0.5			2.0	2.5
VLS	0.2 0.9	0.0		0.4	0.6
WSC-3	0.9	2.8		1.2	4.9
WSC-6	0.1			2.1	2.2
1100-0	0.1			0.5	0.6
GROSS REQUIREMENT	54.9	116.6	51.3	206.8	429.6
CONTRACT TERMINATION	-5.5	-7.6	-2.9		-16.0
BOSS	-3.7	-6.2	-3.0		-12.9
<b>EFFICIENCIES/PROGRAM ADJUSTMENT</b>		-16.7	-24.2	-6.1	-50.3
ASSET OFFSET		-23.6	_ ·	<b>47.</b> 1	-23.6
CREDIT MODS	-13.7	-19.2	-6.3	-5.0	-44.2
SUBTOTAL	28.7	43.3	14.9	195.7	282.6
PROVISIONING SELLDOWN					2.8
SYSTEM STOCK/FOLLOW-ON SYSTEM S	TOCK				8.6
TOTAL					294.0

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT	OPERATING REQUIREMENT BY WEAPON SYSTEM	BUDGET PROJECT 34	(DOLLARS IN MILLIONS)
DEPART	OPERATI		ē

					OPERATING F BU (DOLLAR	OPERATING REQUIREMENT BY WEAPON SYSTEM BUDGET PROJECT 34 (DOLLARS IN MILLIONS)	BY WEAPON S	YSTEM		,		SW-3B
		FY 1995	. 7			FY 1996				FY 1997		
WEAPON SYSTEM	OUTFITTING	SPECIAL	BASIC	TOTAL	OUTFITTING	SPECIAL	BASIC	TOTAL	OUTFITTING	SPECIAL PROGRAMS	BASIC	TOTAL
A-4			<u>*</u>				6	===				!
SUPPT EQUIPMT	e, c		28.7	33.6	0.7		17.3	18.0	0.2		. e	
F-14	<b>5</b>	B. C	67.9	2.19	0 •	<b>a</b> .	41.7	43.7			39.3	39.3
6.9		O.	14.8			3.6	75.7			3.6	12.0	15.8
6.9		7	20.0	10.01		0.6	9 6	3 G		•	æ c	æ c
A-0/E/A-0	6	2.7	3.7	7.9		<b>9</b> .	1.1	2.9		1.3	20	, 6
AV-8	4.0		5 T		•		0.4	- ·	•		3.7	3.7
F/A-16A	6.7	0.19	67.8	28.5	0.	70.6		7.01	<b>5</b> 6		60	8.8
CAT & ARREST			10.2	10.2	30		7.	9	/ C	79.5	39.8	122.0
OTHER TERLIFORM	10.1	4.0	16.9	31.0	10.3	4.0	10.2	24.5	9	0.4	9.6 7.	80 C
CIT				== 6 <del>4</del> 9 <del>4</del>				(25.7)				(19.2)
LONG TERM CONTRACT	<del></del>			(0.6)				(7.0)				(43.9)
TOTAL	28.2	100.0	288.8	300:5	15.9	80.5	155.6	1887	13.8		147.9	(4.1)
SYSTEM STOCK: INTIAL/FOLLOW-ON	JFOLLOW-ON							1.2				
OPERATING REQUIREMENT	ENT			306.7				167.9				185.9
				8 8 8								*****

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT OPERATING RECUREMENT BY WEAPON SYSTEM BUDGET PROJECT 85 (DOLLARS IN MILLIONS)

	TOTAL	0.5	9.7.	54.3	14.4	#. E	. a	- u	2	119.7	(88.9)	777		7 G	1,222.7
	BASIC	1.0	58.6	27.3	13.2	12.8 5.5		5	9	7.1		218.7			
FY 1997	SPECIAL PROGRAMS		0.3	21.2	•	*			0.70	2		2			•
	OUTFITTING	£.	23.0		- c ci c	, e.	4	43.2	47.8	105.8		253.7			
	TOTAL	3.2 3.3 ====	82.8	57.6	17.8	9.50	15.9	75.9	155.1	120.3	(109.3)	488.6	==	853.4	1,383.1
	BASIC	9 69 60 69	59.5	28.7	12.8	2.8	12.1	10.2	88.4	7.0		231.3			
FY 1998	SPECIAL PROGRAMS	٠	1.6	22.7	12.8				27.8			1.53			
	OUTFITTING	22.0	24.5	8.2	€.	3.0	3.8	85.7	58.9	113.4		301.8			
	TOTAL	2.0 2.0 2.0	120.7	43.2	37.4	10.5	<u>ي</u> دن	32.7	182.3	2.5	(153.0)	378.7	45.4	1,017.4	1,438.5
	BASIC	5.4	32.5	. c	6.0	3.8	60 I	0.7	32.6	3.7		130.0			
FY 1995	SPECIAL	;	, c. c.	n B	22.7				9			57.1			
	OUTFITTING	18.6	E &	. 6	7.8	6.7	24.6	28.5	121.3	20.5		348.1	FOLLOW-ON		IN:
	WEAPON SYSTEM	A-4 SUPPT EQUIPMT	F-14	P.3	8.3	A-6/EA-6	E-2/-2		7.7.18A	TERMOR MODE		TOTAL	SYSTEM STOCK: INITIAL/FOLLOW-ON	REPAIR	OPERATING REOUIREMENT

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT	CHERALING HELDCHEMENT BY WEAPON SYSTEM	BUDGET PROJECT 65	DOC ABOUT LE CONO.
DEPARTMENT OF	Crenaling held	BOOGE	DOC ARS IN

		FY 1895				FY 1996				FY 1987		
WEAPON SYSTEM	OUTFITTING	SPECIAL PROGRAMS	BASIC	TOTAL	OUTFITTING	SPECIAL PROGRAMS	BASIC	TOTAL	OUTFITTING	SPECIAL PROGRAMS	BASIC	TOTAL
A-4			3.3	 6.			e;	=== 6			:	1
HELOS	27.4		<b>6</b>	36.3	98 58 78	,	12.1	40.7	22.2		. C	33.5
F-14	10.7		2 6	0.75	31.0	- S	77.4	=	30.6	0.3	78.6	108
P.3	5.2	;	2 2	- K	ö	777	5. 5 5. 5	== = 8	7.6	2.2	36.6	65.6
8-3	12.8	22.7	11.3	46.8	60	12.8	18.6	== 25.5 25.0 25.0 25.0 25.0 25.0 25.0 25.0	. C	•	17.7	19.3
A-WEA-8	11.1		8.2	17.3	3.0		3.0	7.5	. <del>.</del>	* · · ·	2.7.	36.6
AVA	9		10.7	8.18	20		15.7	2.2	6.2		, et	2 2
E/A 400	- 60		G. F.	28.62	55.55		13.3	8.08	58.0			
OTHER	200	2.0	7	262.3	78.7	38.2	0.68	6.102	1.79	36.2	80.0	2001
TERMICH MODS	3		5	(153.0)	147.8		<u>.</u>	156.7	142.0		6.0	151.3
DMR SAVINGS				(325.6)				(169.2)				8.08
TOTAL	573.7	28	24.1	378.7	392.9	73.5	900	8 667	9000			
SYSTEM STOCK: INTIAL/FOLLOW-ON	LFOLLOW-ON			42.4					,	į	C.263.	447.2
REPAIR								2				10.3
												759.2
OPERATING REQUIREMENT	ENT			1,436.5				1,363.1				1,222,1

# DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS SUPPLY MANAGEMENT BY MEAPON SYSTEM/CATEGORY AMPHIBIOUS SUPPLIES FY 1995

· (Dollars in Hillions)

SH-38

LEAPON SYSTEM	BASIC REPLEN	CUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
RECURRING DEMANDS	0.3		 	 	0.3
!			!	!	0.0
			. ·	] 	0.0
i			4		0.0
!					0.0
  TOTAL ORDNANCE TANK AUTOMOTIVE	, 0.3	   0.0	0.0	0.0	0.0
IDIT INF. CIRCUT CHECK	•••••	0.3			0.3
UNIT LEVEL CIRCUIT SWITCH RECURRING DEWANDS	0.7				0.3
					0.0
					0.0
1					0.0     0.0
i					0.0
İ	İ	İ	į	İ	0.0
!					0.0
				i 	0.0   0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.7	0.3	0.0	0.0	1.0
RECURRING DEMANDS	0.3				0.3
		!	ļ	ļ ļ	0.0
		!			0.0   0.0
j	ì		i	i	0.0
	į	j	i	j	0.0
  Total Engineer Support and Construction	0.3				0.0
	U.3	0.0	0.0	0.0	0.3
RECURRING DEWARDS	0.4	İ	i		0.4
	!	ļ	ļ	į	0.0
	ļ	 			0.0   0.0
·	i	į	i		0.0
	į	į	į	j	0.0
  Total general property	0 ( )				0.0
	0.4	0.0	0.0	0.0	0.4
TOTAL	1.7	0.3	0.0	0.0	2.0

January 1995

# DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS SUPPLY MANAGEMENT BY MEAPON SYSTEM/CATEGORY AMPHIBIOUS SUPPLIES FY 1996 (Dollars in Millions)

SM-38

LEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REMORK	   TOTAL   
RECURRING DEWANDS	0.5				0.5
			ĺ	!	0.0
					0.0     0.0
!			•,	! !	0.0
					0.0
i	,	İ	İ	İ	0.0
TOTAL ORDNANCE TANK AUTOHOTIVE	0.5	0.0	0.0	0.0	0.5
UNIT LEVEL CIRCUIT SWITCH		0.2			0.2
RECURRING DEMANDS	0.7				0.7     0.0
			 		0.0
	i				0.0
į i	į	İ			0.0
!					0.0
					0.0     0.0
					0.0
į i	i		İ		0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.7	0.2	0.0	0.0	0.9
					0.0
	j				0.0
j	j	į			0.0
!	l				0.0
1					0.0   0.0
i	i			j	0.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.0	0.0	0.0	0.0	0.0
RECURRING DEMANDS	0.5				0.5
	į	i			0.0
j !	ļ	!			0.0
!	ļ	ļ			0.0   0.0
	ł	 			0.0
	i	İ			0.0
TOTAL GENERAL PROPERTY	0.5	0.0	0.0	0.0	0.5
TOTAL	1.7	0.2	0.0	0.0	1.9

# DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS SUPPLY MANAGEMENT BY WEAPON SYSTEM/CATEGORY AMPHIBIOUS SUPPLIES FY 1997

SM-38

· (Dollars in Millions)

  MEAPON SYSTEM	BASIC REPLEN	<b>O</b> UTFITS	SPECIAL PROGRAMS	BASIC REMORK	TOTAL
RECURRING DEMANDS	0.3				0.3
			<u> </u>	] 	0.0     0.0
			· .	 	0.0
i	j		į į		0.0
!					0.0   0.0
TOTAL ORDNANCE TANK AUTOMOTIVE	0.3	0.0	0.0	0.0	
MARINE TACTICAL COMMAND AND CONTROL					0.0
SYSTEM (MTACCS)		0.7			0.7
RECURRING DEMANDS	0.6				0.6   0.0
1					0.0
i		i			0.0
!					0.0     0.0
!	•				0.0
1					0.0
į i	i	İ			0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.6	0.7	0.0	0.0	1.3
RECURRING DEWANDS	0.2				0.2
1		i	į		0.0
]		. [			0.0     0.0
 					0.0
i					0.0
İ					0.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.2	0.0	0.0	0.0	0.2
RECURRING DEWANDS	0.2				0.2
	İ		İ	İ	0.0
!					0-0
		 	 	 	0.0 <b> </b>   0.0
			İ		0.0
i	j		İ	İ	0.0
TOTAL GENERAL PROPERTY	0.2	0.0	0.0	0.0	0.2
TOTAL	1.3	0.7	0.0	0.0	2.0

# MARINE CORPS SUPPLY HAVAGEMENT BY MEAPON SYSTEM/CATEGORY DEPOT LEVEL REPARABLES FY 1995 (Dollars in Millions)

SH-TR

  MEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	REMORK	TOTAL
		0.2			0.2
AAV7A1 PIP	] 	0.2			0.2
LAV PIP	i	2.5		i	2.5
LAV  MODIFICATION KITS (TRACKED VEHICLES)	<b>i</b>	1.6		j	1.6
LOGISTICS VEHICLE SYSTEM (LVS)	i	0.2	, ·		0.2
	i	j			0.0
BASIC REPLEN/REWORK	0.6			6.1	
TOTAL ORDHANCE TANK AUTOMOTIVE	0.6	4.7	0.0	6.1	11.4
PEDESTAL MOUNTED STINGER	l				0.0
	]				0.0
					0.0
1					0.0
					0.0
BASIC REPLEN/REWORK	0.6				0.6
TOTAL GUIDED MISSILES AND EQUIPMENT	0.6	0.0	0.0	0.0	0.6
	****	0.2			0.2
TSC-96 PIP FLEET SATELLITE COMM TERM		8.3			8.3
UNIT LEVEL CIRCUIT SWITCH		1.6			1.6
TATICAL COMMUNICATION CENTER EQUIPMENT		0.6			0.6
JOINT TATICAL INFORMATION DIST. SYSTEM  ELECTRONIC TEST EQUIPMENT		0.1		i	0.1
SINCGARS RADIO SYSTEM		1.1			1.1
ADVANCED TACTICAL AIR COMMAND CONTROL		0.8		i	0.8
MARINE TATICAL COMMAND AND CONTROL SYSTEM		1.4			1.4
INTELLIGENCE SUPPORT EQUIPMENT		0.6		İ	0.6
JOINT SEREVICE IMAGERY PROCESSING SYSTEM	j	1.7			1.7
INCOLFICATION KITS (INTEL)	i	0.6			0.6
NIGHT VISION EQUIPMENT		3.0	İ		3.0
BASIC REPLEN/REWORK	0.1			7.0	7.1
MODIFICATION KITS (MON-TEL)	$\cap$	0.2			0.2
TOTAL COMMUNICATION AND ELECTRONICS	0.1	20.2	0.0	7.0	27.3
tructures or poort TRACTOR		0.2			0.2
ENGINEER SUPPORT TRACTOR		0.3			0.3
ARMORED COMBAT EXCAVATOR		0.3			0.3
BASIC REPLEN/REVORK	1.0			0.2	1.2
ITOTAL ENGINEER SUPPORT AND CONTRUCTION	1.0	0.8	0.0	0.2	2.0
ISHELTER FAMILY	i	0.1			0.1
BASIC REPLEN/REWORK	0.1	İ		i	0.1
TOTAL GENERAL PROPERTY	0.1	0.1	0.0	0.0	0.2
  TOTAL	2.4	<b>25.8</b>	0.0	13.3	41.5

# DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS SUPPLY MANAGEMENT BY MEAPON SYSTEM/CATEGORY DEPOT LEVEL REPARABLES FY 1996 (Dollars in Millions)

SM-38

LIEAPON SYSTEM	BASIC REPLEN	<b>CU</b> TFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
LAV PIP		0.5			0.5
LOGISTICS VEHICLE SYSTEM (LVS)	!	0.2			0.2
LOGISTICS VEHICLE STOLEN (ETS)	] [				0.0
			÷ .		0.0
					0.0
					0.0
BASIC REPLEN/REWORK	3.6		İ	6.1	9.7
TOTAL ORDNANCE TANK AUTOMOTIVE	3.6	0.7	0.0	6.1	10.4
PEDESTAL MOUNTED STINGER		0.1			0.1
					0.0
					0.0
			!		0.0
			!		0.0
BASTS BEN SUME NOW	0.4		!	0.2	0.0
BASIC REPLEN/REWORK  TOTAL GUIDED MISSILES AND EQUIPMENT	0.6     0.6	0.1	0.0 I	0.2	•
I CONT GOIDED HISSILES AND ENGINEER		9.1			
TSC-96 PIP FLEET SATELLITE COM. TERM		0.2			0.2
UNIT LEVEL CIRCUIT SWITCH (ULCS)		0.3	i	i	0.3
JOINT TACTICAL INFORMATION DIST. SYSTEM		2.5	i	i	2.5
SINCGARS RADIO SYSTEM		1.1	ï	j	1.1
TATICAL AIR OPERATION MODULE (TACH)		0.1	j	j	0.1
ADVANCED TACTICAL AIR COMMAND CENTRAL	j	1.1	Ì	ì	1.1
MARINE TACTICAL COMMAND AND CONTROL SYSTEM		2.0	i	i	2.0
JOINT SERVICE IMAGAERY PROCESSING SYSTEM		2.1	İ	į	2.1
METEOROLOGICAL SYSTEMS		0.9	İ	į	0.9
INTELLIGENCE SUPPORT EQUIPMENT	İ	7.0	İ	1	7.0
MODIFICATION KITS (INTEL)		0.8		·	0.8
NIGHT VISION EQUIPMENT	l 1	0.5	1		0.5
BASIC REPLEN/REWORK	2.2	Į.	1	6.5	8.7
MODIFICATION KITS (NON-TEL)		1.0	!	-	1.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	2.2   	19.6	0.0	6.5	28.3
ENGINEER SUPPORT TRACTOR	i	0.1	i	ĺ	0.1
CONTAINER HANDLER	i	0.1	j	Δİ	0.1
BASIC REPLEN/REWORK	0.9	i	į	0.3	1.2
TOTAL ENGINEER SUPPORT CONSTRUCTION	0.9	0.2	 	0.3	1.4
SHELTER FAMILY		0.0		0.0	0.0
BASIC REPLEN/REWORK	0.1	1	1	Į.	0.1
TOTAL GENERAL PROPERTY	0.1	0.0		0.0	0.1
TOTAL	7.4	20.6	0.0	13.1	41.1

January 1995

# DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS SUPPLY MANAGEMENT BY MEAPON SYSTEM/CATEGORY DEPOT LEVEL REPARABLES FY 1997 (Dollars in Millions)

SH-38

LEAPON SYSTEM	BASIC REPLEN	CUTFITS	SPECIAL PROGRAMS	BASIC REWORK	   TOTAL
LAV PIP		0.2		6.5	6.7
	j	į	į	İ	0.0
	!			1	0.0
	! !	! !	· ·	! !	0.0
	i İ	i	j	•	0.0
BASIC REPLEN/REWORK	3.7	j	İ	İ	3.7
TOTAL ORDINANCE TANK AUTOMOTIVE	3.7	0.2	0.0	6.5	10.4
PEDESTAL MOUNTED STINGER			! 	0.2	1
BASIC REPLEN/REWORK	0.6				0.6
TOTAL QUIDED MISSILES AND EQUIPMENT	0.6	0.0	0.0	0.2	0.8 
MANPACK RADIOS AND EQUIPMENT		0.1			0.1
VEHICLE NTD. RADIOS AND EQUIPMENT		2.2			2.2
JOINT TACATICAL INFO DIST. SYSTEM ISINCGARS RADIO SYSTEM		2.0   0.7			2.0   0.7
COBAL POSITIONING SYSTEM		0.1	i		0.1
TATICAL AIR OPERATIONS MODULEL	j	0.1	İ		0.1
MARINE TATICAL COMMAND AND CONTROL SYSTEM		2.2			2.2
JOINT SERVICE IMAGERY PROCESSING SYSTEM INTELLELGENCE SUPPORT EQUIPMENT		2.1   3.0			2.1     3.0
INCOIFICATION KITS (INTEL)		0.8			0.8
NIGHT VISION EQUIPMENT		0.3			0.3
MODIFICATION KITS (NON-TEL)		1.9		6.6	8.5
BASIC REPLEN/REVORK	2.4	45.5			2.4
TOTAL COMMUNICATION AND ELECTRONICS	2.4	15.5	0.0	6.6	24.5
CONTAINER HANDLER		0.2		0.3	
	0.9	!			0.0 0.9
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.9	0.2	0.0	0.3	
SHELTER FAMILY					0.0
	į	į			0.0
	ļ	!			0.0
					0.0   0.0
	_	ļ			0.0
BASIC REPLEN/REWORK	0.1				0.1
TOTAL GENERAL PROPERTY	0.1	0.0	0.0	0.0	0.1
TOTAL	7.7	15.9	0.0	13.6	37.2

			Peacetime	
	Total	Mobilization	Operating	Other
1. INVENTORY BOP	30,693.0	608.9	12,534.9	17,549.2
2. BOP INVENTORY ADJUSTMENTS	2.943.6	38.6	3,249.5	(344.5)
A. RECLASSIFICATION CHANGE (memo)	(0.0)	(0.1)	2,250.7	(2,250.6)
B. PRICE CHANGE AMOUNT (memo)	2,943.6	38.7	998.8	1,906.1
C. INVENTORY RECLASSIFIED AND REPRICED	33,636.6	647.5	15,784.4	17,204.7
3. RECEIPTS AT STANDARD	4,807.2	25.3	4,657.6	124.3
4. SALES AT STANDARD	7,045.3	0.4	7,044.9	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(1,291.6)	(15.3)	(478.4)	(797.9)
B. RETURNS FROM CUSTOMERS FOR CREDIT	428.3	0.4	285.4	142.5
C. RETURNS FROM CUSTOMERS, NO CREDIT	13,198.2	0.1	5,823.3	7,374.8
D. RETURNS TO SUPPLIERS (-)	(70.4)	0.0	(2.6)	(67.8)
E. TRANSFERS TO PROP. DISPOSAL (-) F. ISSUES/RECEIPTS WITHOUT	(5,039.0)	(5.5)	5.5	(5,039.0)
REIMBURSEMENT + or (-)	(889.6)	(18.6)	(246.4)	(624.6)
G. OTHER (list/explain)	(6,557.8)	(88.7)	(5,826.2)	(642.9)
H. TOTAL ADJUSTMENTS	(221.9)	(127.6)	(439.4)	345.1
6. INVENTORY EOP	31,176.6	544.8	12,957.7	17,674.1
7. INVENTORY EOP (REVALUED)	17,533.1	392.4	9,102.8	8,037.9
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,829.0
B. ECONOMIC RETENTION (memo)	•			<b>3,59</b> 5.4
C. CONTINGENCY RETENTION (memo)				514.0
D. POTENTIAL DOD REUTILIZATION (memo)				99.5
8. INVENTORY ON ORDER EOP (memo)	2,911.6	87.0	2,709.7	114.9
9. NARRATIVE:				
Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(1,341.8)	19.8	(1,447.0)	85.4
Strata Translers	0.0	(108.5)	836.8	(728.3)
Net/Standard Difference	(5,216.0)	0.0	(5,216.0)	0.0
	*****			
Total	(6,557.8)	(88.7)	(5,826.2)	(642.9)

			Peacetime	
				Other
	Total	Mobilization	Operating	Other
1. INVENTORY BOP	31,176.6	544.8	12,957.7	17,674.1
2. BOP INVENTORY ADJUSTMENTS	4,943.7	56.7	1,838.1	3,048.9
A. RECLASSIFICATION CHANGE (memo)	0.0	3.0	665.7	(668.7)
B. PRICE CHANGE AMOUNT (memo)	4,943.7	53.7	1,172.4	3,717.6
C. INVENTORY RECLASSIFIED AND	36,120.3	601.5	14,795.8	20,723.0
REPRICED				
3. RECEIPTS AT STANDARD	3,928.4	20.1	3,869.9	38.4
4. SALES AT STANDARD	7,148.3	0.0	7,148.3	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(782.6)	(0.9)	(108.7)	(673.0)
B. RETURNS FROM CUSTOMERS FOR CREDIT	369.0	0.5	`101.8	266.7
C. RETURNS FROM CUSTOMERS, NO CREDIT	12,075.1	0.1	6,383.6	5,691.4
D. RETURNS TO SUPPLIERS (-)	(96.3)	0.0	(7.7)	(88.6)
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,739.2)	0.0	0.1	(3,739.3)
F. ISSUES/RECEIPTS WITHOUT				, ,
REIMBURSEMENT + or (-)	(456.0)	0.0	(66.8)	(389.2)
G. OTHER (list/explain)	(7,210.6)	(10.0)	(6,783.7)	(416.9)
H. TOTAL ADJUSTMENTS	159.4	(10.3)	(481.4)	651.1
6. INVENTORY EOP	33,059.8	611.3	11,036.0	21,412.5
7. INVENTORY EOP (REVALUED)	15,151.9	407.6	6,634.6	8,109.7
A. APPROVED ACQUISITION OBJECTIVE (memo)				4,021.6
B. ECONOMIC RETENTION (memo)				3,488.5
C. CONTINGENCY RETENTION (memo)				501. <b>1</b>
D. POTENTIAL DOD REUTILIZATION (memo)				98.5
8. INVENTORY ON ORDER EOP (memo)	2,525.0	48.5	2,366.0	110.5
9. NARRATIVE:				
Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(121.6)	0.0	(229.2)	107.6
Strata Transfers	0.0	(10.0)	534.5	(524.5)
Net/Standard Difference	(7,089.0)	` 0.0	(7,089.0)	0.0
Total		(10.0)	(6,783. <b>7</b> )	(416.9)
Total	(7,210.6)	(10.0)	(0,703.7)	(410.9)

			Peacetime	
	Total	Mobilization	Operating	Other
	*****	***************************************		
1. INVENTORY BOP	33,059.8	611.3	11,036.0	21,412.5
2. BOP INVENTORY ADJUSTMENTS	(6,956.6)	(57.8)	304.6	(7,203.4)
A. RECLASSIFICATION CHANGE (memo)	0.0	0.0	2,643.5	(2,643.5)
B. PRICE CHANGE AMOUNT (memo)	(6,956.6)	(57.8)	(2,338.9)	(4,559.9)
C. INVENTORY RECLASSIFIED AND	26,103.2	553.5	11,340.6	14,209.1
REPRICED			,.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
3. RECEIPTS AT STANDARD	3,932.1	17.1	3,899.2	15.8
4. SALES AT STANDARD	6,026.5	0.0	<b>6,026</b> .5	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(227.7)	0.0	(4.6)	(223.1)
B. RETURNS FROM CUSTOMERS FOR CREDIT	534.2	0.4	317.3	216.5
C. RETURNS FROM CUSTOMERS, NO CREDIT	7.993.3	0.1	4,005.1	3,988.1
D. RETURNS TO SUPPLIERS (-)	(62.1)	0.0	(9.4)	(52.7)
E. TRANSFERS TO PROP. DISPOSAL (-)	(2,900.8)	0.0	0.0	(2,900.8)
F. ISSUES/RECEIPTS WITHOUT	(5,000.0)	0.0	0.0	(2,555.5)
REIMSURSEMENT + or (-)	(208.7)	0.0	(66.9)	(141.8)
G. OTHER (list/explain)	(5,161.1)	0.0	(3,989.3)	(1,171.8)
H. TOTAL ADJUSTMENTS	(32.9)	0.5	252.2	(285.6)
	(-3)	<b></b>		(200.0)
6. INVENTORY EOP	23,975.9	571,1	9,465.5	13,939.3
7. INVENTORY EOP (REVALUED)	14,724.6	420.5	7,212.2	7,091.9
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,776.2
B. ECONOMIC RETENTION (memo)				2,822.6
C. CONTINGENCY RETENTION (memo)				414.4
D. POTENTIAL DOD REUTILIZATION (memo)				78.7
8. INVENTORY ON ORDER EOP (memo)	2,251.6	7.6	2,239.5	4.5
9. NARRATIVE:				
Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(126.6)	0.0	(197.8)	71.2
Strata Transfers	0.0	0.0	1,243.0	(1,243.0)
Net/Standard Difference	(5,034.5)	0.0	(5,034.5)	0.0
Total	,E 404 4)		/A ACT A	
1 Utal	(5,161.1)	0.0	(3,989.3)	(1,171.8)

			Peacetime	
	Tota!	Mobilization	Operating	Other
			- 405 5	40.020.2
1. INVENTORY BOP	23,975.9	571.1	9,465.5	13,939.3
2. BOP INVENTORY ADJUSTMENTS	2,046.0	21.2	2,221.8	(197.0)
A. RECLASSIFICATION CHANGE (memo)	0.0	0.0	1,552.1	(1,552.1)
B. PRICE CHANGE AMOUNT (memo)	2,046.0	21.2	669.7	1,355.1
C. INVENTORY RECLASSIFIED AND REPRICED	26,021.9	592.3	11,687.3	13,742.3
· · · · · · · · · · · · · · · · · · ·	0.755.0	2.7	<b>3,74</b> 8.1	4.8
3. RECEIPTS AT STANDARD	3,755.6	2.7	3,740.1	4.5
4. SALES AT STANDARD	5,988.4	0.0	5,988.4	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(78.5)	0.0	22.2	(100.7)
B. RETURNS FROM CUSTOMERS FOR CREDIT	431.2	0.1	191.2	239.9
C. RETURNS FROM CUSTOMERS, NO CREDIT	8,710.1	0.1	4,759.4	3,950.6
D. RETURNS TO SUPPLIERS (-)	(53.3)	0.0	<b>(2.0</b> )	(51.3)
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,047.8)	0.0	0.0	(3,047.8)
F. ISSUES/RECEIPTS WITHOUT	4450.0	0.0	(21.8)	(134.2)
REIMBURSEMENT + or (-)	(156.0)		(4,626.9)	(718.4)
G. OTHER (list/explain)	(5,356.3)	(11.0)	322.1	138.1
H. TOTAL ADJUSTMENTS	449.4	(10.8)	322.1	135.1
6. INVENTORY EOP	24,238.5	584.2	9,769.1	13,885.2
7. INVENTORY EOP (REVALUED)	13,809.6	414.6	6,854.9	6,540.1
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,495.9
B. ECONOMIC RETENTION (memo)				2,582.5
C. CONTINGENCY RETENTION (memo)				389.2
D. POTENTIAL DOD REUTILIZATION (memo)				72.5
8. INVENTORY ON ORDER EOP (mermo)	2,157.7	2.7	2,151.4	3.6

9. NARRATIVE:

OF NAVY, SUPPLY MANAGEMENT	- SURCHARGE CALCULATION	(DOLLARS IN MILLIONS)
DEPARTMENT OF	WHOLESALE	00

WHOLESALE -	WHOLESALE - SURCHARGE CALCULATION (DOLLARS IN MILLIONS)	AL CULAT ION ONS)	SM-58
SHIPS/AVIATION	FY 95	F4 %	FY 97
1. CY Net sales at Cost 2. +/- PY Material Inflation 3. CY Net Sales a PY Cost 4. PY Surcharge at PY Prices 1A. CY Net sales at Cost 4A. CY Surcharge	2412.0 -2123.1 -2123.1 -282.1 -2926.4 -2412.0	2591.8 2623.7 2623.7 46.8% 3850.5 2591.8	2399.4 2401.8 2401.8 17.6% 2823.7 2399.4 331.6%
: 23	22.1%	i	3156.5

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT WHOLESALE - SURCHARGE CALCULATION (DOLLARS IN MILLIONS)	NT OF NAVY, SUPPLY MAILE - SURCHARGE CALCU	Y MANAGEMENT ALCULATION ONS)	SH-58
BP14-SHIPS CONSUMABLES	FY 95	FY 96	FY 97
1. CY Net sales at Cost 2. +/- PY Material Inflation 3. CY Net Sales a PY Cost 4. PY Surchage 5. CY Net Sales at PY Prices	4.00 4.00 4.00 8.00 8.00 8.00 8.00	59.4 -1.4 58.0 58.1%	62.3 -1.8 -1.8 15.14
1A. CY Net sales at Cost 4A. CY Surcharge 5A. CY Net Sales at CY Prices	89.4 58.1x 141.3		62.3 31.6% 82.0
PERCENT CHANGE TO CUSTOMER	4.3%	-25.4X	77.71

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT WHOLESALE - SURCHARGE CALCULATION (DOLLARS IN MILLIONS)

			8K-58
BP34-AVIATION CONSUMABLES	FY 95	FY 96	FY 97
CY Net sales at Cost +/- PY Material Inflation CY Net Sales a PY Cost PY Surcharge CY Net Sales at PY Prices	4.9.6 4.9.6 13.5%	237.2 6.0 243.2 47.9%	201.0 -5.8 195.2 15.1%
CY Net sales at Cost CY Surcharge CY Net Sales at CY Prices	349.6 47.9% 517.0	237.2 15.1% 273.1	201.0 31.5% 264.4
PERCENT CHANGE TO CUSTOMER	30.2%	-24.1%	17.72

DEPARTMENT OF MAVY, SUPPLY MANAGEMENT WHOLESALE - SURCHARGE CALCULATION

	1			
SM-58	FY 97	464.5 -11.9 -452.6 15.3%	464.5 31.5% 611.0	17.0%
ONS)	FY 96	437.5 -7.2 430.3 56.1%	437.5 15.1% 503.6	-25.0%
(DOLLARS IN MILLIONS)	FY 95	528.3 -30.2 498.1 53.9%	528.3 56.5% 826.6	7.8%
1100)	BP61-SHIPS REPAIRABLES	1. CY Net sales at Cost 2. +/- PY Material Inflation 3. CY Net Sales a PY Cost 4. PY Surcharge 5. CY Net Sales at PY Prices	1A. CY Net sales at Cost 4A. CY Surcharge 5A. CY Net Sales at CY Prices	PERCENT CHANGE TO CUSTOMER

MANAGEMENT	CULATION	(8)
Y, SUPPLY	CHARGE CAL	THE WILL TO
DEPARTMENT OF NAVY, SUPPLY MANAGEMENT	ESALE - SUR	COULLARS
DEPAR	MHOL	

,			
SH-58	FY 97	1671.6 21.9 1693.5 18.5% 2007.3	1671.6 31.6% 2199.1 9.6%
	FY 96	1857.7 34.5 1892.2 44.1%	1857.7 15.1% 2138.4 -21.6%
	FY 95	1444.7 -99.8 1344.8 21.0%	1444.7 44.5x 2087.1 28.3x
	BPB5-AVIATION REPAIRABLES	1. CY Net sales at Cost 2. +/- PY Material Inflation 3. CY Net Sales a PY Cost 4. PY Surcharge 5. CY Net Sales at PY Prices	1A. CY Net sales at Cost 4A. CY Surcharge 5A. CY Net Sales at CY Prices PERCENT CHANGE TO CUSTOMER

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT MARINE CORPS WHOLESALE EXHIbit SM-55 Customer Price Change
--

Composite (BP54 & BP84) (Consumable & Reparable)	DEPARTMENT OF MARIN EXHIDI (\$ IN N	DEPARTMENT OF NAVY, SUPPLY MANAGEMENT MARINE CORPS WHOLESALE EXHIBIT SM-55 CUSTOMER PROS CHANGE (\$ IN MILLIONS)	GEMENT Fernge
	F 88	FY 88	FY 97
1. Net Sales at Cost	33.2	39.2	27.4
2. Less: Mart inflation Adj.	6.0	=	
3. Hevised Net Sales	32.3	38.1	, e
4. Surcharge 5. Change in Cirebmen	15.6	13.3	10.4
a. Previous Year's Surcharge (%)	47.2%	51.6%	37.8%
<ul><li>b. This year's Surcharge divided by line 3 above (\$)</li></ul>	51.6%	37.8%	42.1%
c. Percent change to customer	%7.0	.0.1%	9:00

# DEPARTMENT OF NAVY, SUPPLY MANAGEMENT

Depot Level Reparables (BP 84)

EMENT	FY 97	20.7	90	5	1.7	39.5%	39.2%	32%
DEPARIMENT OF NAVY, SUPPLY MANAGEMENT MARINE CORPS WHOLESALE Exhibit SM-5b Customer Price Change (\$ IN MILLIONS)	F7	30.3	6.0	29.4	9.6	51.7%	39.5%	-10.6%
DEPARIMENT OF I MARINE Exhibit S (\$ IN M	£	24.4	0.7	23.7	11.1	47.2%	51.7%	0.7%

c. Percent change to customer

b. This year's Surcharge divided by line 3 above (\$)

Net Sales at Cost
 Less: Mart Inflation Adj.
 Revised Net Sales
 Surcharge
 Change to Customers
 Previous Year's
 Surcharge (%)

# FUEL DATA (Dollars in Millions) FY 1994 DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

	PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4 <sup>'</sup>	,	0.0	0.0	0.0	\$0.0
Distillates		19.4	32.8	635.6	\$24.1
JP-5		11.7	35.7	416.7	\$24.3
JP-8		0.0	0.0	0.0	\$0.0
Motor Gas Leaded Unleaded		0.0 0.1	40.7 38.2	0.1 5.2	\$40.7 \$24.6
Residuel		0.9	25.6	22.1	\$11.1
AVGAS		0.0	56.3	0.2	\$63.0
AF					
Special Fuels 1 (JA-1)		0.0	0.0	0.0	\$0.0
Special Fuels 2 (JP-TS)		0.0	0.0	0.0	\$0.0
Gasohol		0.0	0.0	0.0	\$0.0
Diesel		0.2	32.8	6.1	\$32.8
Navy Reclaimed		8.0	16.0	13.5	\$16.0
Other					
Bunker "C"		7.1	16.0	114.1	\$11.1
Lube Oil		0.0	106.1	1.5	\$87.0
Coal		0.0	52.0 ·	1.7	\$52.0
Navy Special		0.0	25.6	0.0	\$15.0
Into Plane		0.0	0.0	0.0	\$0.0
Other		0.0	36.7	0.2	<b>\$0</b> .0
	Total	40.3		1,217.0	

# FUEL DATA (Dollars in Millions) FY 1995 'DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

	PRODUCT	Barreis	Cost Per Barrel	Extended Cost	Stabilized Price
,	*******	-		**********	**********
JP-4		0.0	29.8	0.0	\$24.2
Distillates		19.0	28.6	544.7	\$26.6
JP-5		10.9	30.7	334.7	\$26.9
JP-8		0.0	0.0	0.0	\$0.0
Motor Gas					
Leaded		0.0	35.3	0.1	\$35.3
Unleaded		0.2	28.6	4.5	\$27.1
Residual		8.0	17.6	14.5	\$27.1
AVGAS		0.0	88.6	0.2	\$69.5
AF					
Special Fuels 1 (JA-1)		0.0	0.0	0.0	\$0.0
Special Fuels 2 (JP-TS)		0.0	0.0	0.0	\$0.0
Gasohol		0.0	0.0	0.0	\$0.0
Diesel		0.2	28.6	4.9	\$28.6
Navy Reclaimed		0.6	17.2	10.3	\$17.2
Other					
Bunker "C"		4.2	16.0	67.2	\$12.3
Lube Oil		0.0	94.1	1.4	\$96.1
Coal		0.0	52.2	1.2	<b>\$</b> 52.5
Navy Special		0.0	16.4	0.0	\$16.6
into Plane		0.0	0.0	0.0	\$0.0
Other		0.0	35.3	0.1	\$0.0
	Total	36.0		983.7	

# FUEL DATA (Dollars in Millions) FY 1996 'DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

PRODUCT	Barreis	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4	0.0	0.0	0.0	\$0.0
Distillates	18.1	30.7	554.7	\$28.2
JP-5	10.5	32.8	344.4	\$28.5
JP-8	0.0	0.0	0.0	\$0.0
Motor Gas	•		10	407.0
Leaded Unleaded	0.0 0.1	37.8 30.7	1.2 4.5	\$37.8 \$28.8
Residual	8.0	18.5	14.1	\$13.0
AVGAS	0.0	94.9	0.2	\$73.8
AF				
Special Fuels 1 (JA-1)	0.0	0.0	0.0	\$0.0
Special Fuels 2 (JP-TS)	0.0	0.0	0.0	\$0.0
Gasohol	0.0	0.0	0.0	\$0.0
Diesel	0.2	28.6	4.9	\$0.0
Navy Reclaimed	0.6	18.9	11.4	\$18.5
Other				
Bunker "C"	4.2	16.0	67.2	\$13.9
Lube Oil	0.0	94.1	1.5	\$102.0
Coal	0.0	52.2	1.2	\$52.2
Navy Special	0.0	16.4	0.0	\$17.6
Into Plane	0.0	0.0	0.0	\$0.0
Other	0.0	36.0	0.1	\$0.0
Total	34.6		1,005.5	

# FUEL DATA (Dollars in Millions) FY 1997 DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

,	PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4		0.0	34.0	0.0	\$27.2
Distillates		16.1	31.1	500.7	\$29.9
JP-5		10.1	33.2	335.3	\$30.2
JP-8		. 0.0	0.0	. 0.0	\$0.0
Motor Gas Leaded Unleaded		0.0 0.1	38.2 31.1	0.1 4.5	\$39.6 \$30.5
Residual		0.7	18.9	14.0	\$13.8
AVGAS		0.0	95.3	2.9	\$78.1
AF		0.0	0.0	0.0	0.0
Special Fuels 1 (JA-1)		0.0	0.0	0.0	\$0.0
Special Fuels 2 (JP-TS)		0.0	0.0	0.0	\$0.0
Gasohol		0.0	0.0	0.0	\$0.0
Diesel		0.2	29.0	5.8	\$0.0
Navy Reclaimed		0.5	19.3	10.4	\$19.7
Other					
Bunker "C"		5.3	16.0	85.5	\$14.7
Lube Oil		0.0	<b>99.</b> 8	0.3	\$108.0
Coal		0.0	52.2	1.2	\$0.0
Navy Special		0.0	16.4	0.0	\$18.6
Into Plane		0.0	0.0	0.0	\$0.0
Other		0.0	36,1	0.1	\$0.0
	Total	33.3		960.9	

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millors of Dollars)

SUPPLY MANAGEMENT	Como	6		Program	Cost of			Program	Com of				Cost of
	FY 1894	Percent	Amount		Coerations FY 1995	Grown and and and and and and and and and an	Amount		Operations FY 1996	Price Growth Percent	Amount	& Other Charges	Operations FY 1997
MILITARY PERSONNEL COMPENSATION			i			!	ł		•		i	İ	-
010 Officer Composite 050 Enlisted Composite Total Military Personnel Compensation	5.842 1.178	9200	0.164	-1.079 -0.218	1960	0000	0.030	1.626	7.812	0.030	0201	0.185 0.363	7.17
CIVILIAN PERSONNEL COMPENSATION											}		3
101 Executive, General & Special Schedule 103 Wage Board	285.225		6.793	-16.616	252.400		4.688	-13.600	242.888		8.833	-13.372	234.940
	0000		0000	0000	000		000	88	000			000	X 00
107 Benalis to Former Employees 107 Voluntary Separation & Incentive Payments Total Civilian Personnel Compensation	0.000 0.000 264.565		0.000 0.000 6.811	0.00 11.860	282.736		0.000 0.000 5.263	0.00 0.00 16.59	0.000 0.000 278.805		0.000 0.000 6.875	0.000 0.000 -15.278	0.000
INVENTORY PROCUREMENT													
	0000		0000	0.00	0.000		0000	0000	0000		0000	000	0000
	0 0		0000	000 000 000 000 000 000 000 000 000 00	000		000	000	000		000	000	000
	0000		0000	0000	0000		0000	000	000		88	000	8 6
ZOS ULH Repair Purchases Organic (DBOF)	8 6		000	000	000		000	0000	0 0 0 0		88	000	000
From Army Dop Maint	000		000	0000	0000		0000	0000	0000		000	000	000
From Air Force Dep Main	0.00		000	000	0000		000	800	000		000	000	000
Contract Contract	0.00		0.00	000	000		000	000	000		0000	0000	0000
207 Medica/Dental Purchases	88		88	000	000		000	000	0.00		0000	0000	0000
	0000		0000	0000	0000		000	000	0000		0000	0 0 0 0	0 0 0 0 0
211 Heturns (for credit) from Customers Total Inventory Procurement	0000		0000	000	0000		000	0000 0000	0000		0 0 0 0 0 0	0000	0000
TRAVEL													
301 Per Diem	0214		0.00	2000	0.182		0.00	0.006	0.186		0000	0000	0.188
SUC Offer Face Costs SUC AND Passengers (DBOF) 207 I passed Validation	000	0.028	200	6 6 6 6 6 6	000	0.030	000	0.000	900	0000	0.00	0000	0.000
Total Travel	0.834		0.012	-0.127	0.519		0.00	0.000	0.552	1	0.000	000	0.000
MATERIAL, EQUIP & SUPPLIES (INTERNAL OPS)													
401 Fuel Purchases (Other than from Supp Ope)	0000		0000	0000	0.00		0000	0000	0.00		0.000	0.000	0.000
416 GSA Managed Supply Operations Purchases 416 GSA Managed Supply Operations Purchases 417 Locally Purch Supply (Other than it Supplose)	28.374	0.028	0.738	-0.748 -2.284	28.38	0.030	0.79	1200	28.355 28.355 28.355	0030	0.851	800	29 50 68 50 20 68
	54.652		1.530	3.032	53.150	200	1.595	3.418	58.161	0.030	1.745	0.000	59.908

56.163         0.094         5.187         -10.578           0.000         0.180         0.000         0.000           3.183         0.023         0.073         2.731           10.296         0.023         0.237         3.728           2.650         0.187         0.486         0.442           20.759         -0.013         -0.270         3.300           4.171         0.206         0.847         -0.715           96.241         8.570         -1.865	33.222 0.028 0.930 12.498 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 17.428 0.022 4.043 1.041 5.948 0.028 0.047 18.043 5.948 0.000 0.	0.333 0.000 0.000 4.287 0.017 0.000 0.000 0.283 1.750 0.000 0.000 0.829 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.300 0.000 0.000 0.300 2.400 0.000 0.000 5.079	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 2.004 0.028 0.058 8.930 0.028 0.191 2.273
8,782 0,001 0,000 0,008 5,967 -0,030 4,261 -0,029 2,714 0,000 2,778 -0,038 4,303 -0,198 0,648	8.848 0.030 0.000 0.000 0.184 8.844 0.075 1.830 0.030 0.000 0.000 0.000	4,600 0,000	0.007 0.000 0.000 0.000 0.000 0.000 2.172 0.030 8.394 0.030
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	1,399 0,000 0,000 2,799 0,513 1,801 0,000 0,000	000000000000000000000000000000000000000	0.000 0.000 0.000 0.082 0.279
1.741 48.101 0.000 0.000 0.870 6.877 0.090 2.804 4.236 27.121 3.872 7.143 9.195 107.781	3.553 44.484 0.000 0.000 0.000 1.000 0.237 7.120 0.000 1.86 0.000 0.000 0.000 0.000 0.000 0.000	9.754 14.356 0.000 0.300 2.022 4.801 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 11.778 19.254	-0.007 0.000 0.000 0.000 0.000 0.000 -0.002 2.232 0.243 8.916
0.000 0.000 0.000 0.000 0.000 0.000	0.030 0.044 0.030 0.030 0.030	4 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000
3.511 6.000 0.147 0.137 -1.871 0.451 2.485	1,336 0,000 0,000 1,445 0,705 1,734 1,734 0,000 0,000	00000 00000 00000 00000	0.000 0.000 0.000 0.084
-2.845 0.000 0.214 0.255 0.053 0.097	3.865 0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.431 0.000 0.000 0.000 0.000 0.000	0000
48,787 0,000 8,744 16,074 2,286 27,935 7,497 09,905	42.164 0.000 0.000 13.597 13.588 1.942 58.772 0.000 0.000	14,785 0,300 7,382 0,000 0,000 0,000 22,447	0.000 0.000 0.000 2.296 10.210
	0.094 5.187 -10.578 44.782 0.001 0.050 -1.741 48.101 0.073 3.511 0.073 0.0000 0.0000 0.0000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.0	0.094 5.187 -10.578 48.782 0.001 0.0560 -1.741 44.101 0.0773 3.511 2.5845 0.000 0.00	0.024 8.187 -10.578 48.782 0.001 0.005 0.000 0.0

0.000 1.602 2.838 0.216 7.520 0.000	923.788
0.000 0.000	33,625
0.026 0.000	19.395
000000000000000000000000000000000000000	
0.941 0.000 1.565 2.758 0.212 0.212 0.204 0.000	939.396
0.000 0.000	52.175
0.027 0.037 0.037 0.037 0.030	13.134
0000 0000 0000 0000 0000 0000 0000 0000 0000	
0.914 0.000 1.233 2.773 0.026 0.026 0.000	979.539
0.000 0.000	43.163
0.025 0.026 0.034 0.036 0.036 0.036 0.030	6.790
\$200 \$200 \$200 \$200 \$200 \$200 \$200 \$200	-
0.000 0.000	1008.702
920 Supplies & Materiale (Non DBOF) 921 Printing & Reproduction 922 Equipment Maintenance by Contract 923 Equipment Maintenance by Contract 925 Equipment Purchasee (Non DBOF) 931 Contract Consultants 923 Contract Consultants 923 Contract Consultants 924 Contract Studies & Analysis 924 Contract Eng & Technical Services (CETS) 941 Technical Drawings (Supply Ops only) 924 Forgings & Castings (Supply Ops only) 925 Software Development 925 Software Development 926 ADPE Maintenance 926 Software Development 937 Reimbursements to Distribution Depots 939 Other Intragovernmental Purchasee 939 Other Tortia Services & Support 937 Other Intragovernmental Purchasee 939 Other Contracts 939 Other Contracts 939 Other Contracts	TOTAL COST OF OPERATIONS

	Ouent	fy 1994	Y Tanag	FY 1995	Ay	1996	FY 1997
1b. Non-ADP Equipment (>25,000<500,000)		0.032		0.014			0.100
Subtotal Equipment (>25,000<500,000)		0.032	•	0.014		0.100	0.100
2a. ADP Equipment (>100,000)  - BLC (Replacement)  - JLSC  - PRIMIS  - JEDMICS (Productivity)		1.177		0.001 1.500 0.000		12.000	10.000
Subtotel ADP Equipment (>100,000)	•	£.795		3.982		16.244	14.392
2b. ADP Equipment (>25,000<100,000)							
Subtotal ADP Equipment (>25,000<100,000)		0.000	-i	0.000		0.000	 0.000
Minor Construction		0.369		0.400		0.300	0.300
Subtotal Minor Construction		0.369		007.0		0.300	0.300
GRAND TOTAL CAPITAL PURCHASE PROGRAM		5.196		4.396		16.644	 - 14.792

BUDGET SUBMISSION FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	IESS AREADATE				01 ITEM	OI ITEM DESCRIPTION	IPTION		
NAVY/SUPPLY MANAGEMENT/JANUARY 1995	NAGEMENT/J/	ANUARY 1995			ОТНЕВ	SUPPL	Y SUPPOR	OTHER SUPPLY SUPPORT EQUIPMENT	ENT
ELEMENTS OF COST	FY 1995   UNIT  QTY   COST	TOTAL	QTV	FY 1996   UNIT   COST	   TOTAL   COST 	V10	FY 1997 UNIT COST	TOTAL	
01 SHOP & OFFICE EQUIPMENT				VAR	- 100 - 100		VAR	001	
N						_			

Narrative Justification

Shop and Office Equipment - This program replaces obsolete equipment which is beyond economical repair and procures new equipment which will enable a unit to perform more effectively. Needs are fulfilled based on priorities determined by the requester and the Headquarters staff. Emphasis is given to replacing older equipment and to procuring those items which will provide productivity improvement. The following are examples of equipment procured under this program: retrieval systems, communications systems and public works shop equipment.

BUDGET SUBMISSION FY 96/97 PRESIDENTS

COMPONENT/BUSINESS AREA/DATE NAVY/SUPPLY MANAGEMENT/JANUARY 1995	R <i>EADATE</i> EMENT/JANUARY 1995	ITEM DESC	TTEM DESCRIPTION JEDMICS			
ELEMENTS OF COST			FY 1996     UNIT   TOTA   COST   COST 	TOTAL   COST  QTY 	FY 1997   UNIT   COST 	TOTAL    COST   
JEDMICS (Equipment)		- - - -	0   4.244			4.392

engineering and manufacturing information on ships, aircraft and electronics. This information is used by the fleet shore establishment and Industry in support of IEDMICS.- is an OSD-directed effort in response to Congressional direction in PL 96-525 to develop a centralized automated system to Index, store, retrieve, and distribute technical drawings. The Joint Engineering Data Management Information and Control System (JEDMICS) which was developed in response to Congressional direction, replaces labor intensive, inefficient manual and semi-automated technical repositories with automated central repositories for all spares acquisition, equipment maintenance and modernization and preparation of technical publications.

JEDMICS was designated the DoD standard system for storing engineering drawings by ASD C31 ltr of 14 Nov 1991. FY 1996 and FY 1997 dollars are being used for technology refreshment and follow-on expansion to additional users for the eight primary technical data repositories.

A pre-investment economic analysis was completed/approved before JEDMICS received MAISRC authority to proceed with implementation. The discounted savings investment ratio is 1.5. Total program benefits for life cycle 1992 thru 2005 are projected at \$42.4M.

BUDGET SUBMISSION FV 96/97 PRESIDENT'S

									FY 96/97 P	FY 96/97 PRESIDENT'S	£
COMPONENT/BUSINESS AREA/DATE NAVY/SUPPLY MANAGEMENT/JANUARY 1995	S <i>areada</i> Agement	<i>te</i> 'Januai	RY 1995	71 M	ITEM DESCRIPTION Material Managemen	RIPTIC	)// nent Stan	dard Sy	ITEM DESCRIPTION Material Management Standard System (MMSS)	(SS)	
ELEMENTS OF   COST				 	FY 199     UNIT   QTY   COST 	9	TOTAL  COST  QTV		FY 1997   UNIT   COST	  TOTAL  COST	
Materiel Management   Standard System   (Equipment)				 			12.0	•	• 	0.01	
Narrative Justification										-	-

Materiel Management Standard System - These funds are to support the fielding of the Materiel Management Standard System (MMSS) being developed by the Joint Logistics Systems Center to Navy and Marine Corps Inventory Control Points (ICPs). During the recent budget review, the responsibility for acquisition of hardware for fiscal years 1995-1997 was transferred from the JLSC to the Military Services and the Defense Logistics Agency (DLA).

services and DLA, has evaluated the processes of the DoD ICPs, selected and developed the most optimum automated information systems to support improved The MMSS was created in response to the DoD initiative to standardize logistics systems across DoD. Over the past two years the JLSC, working with the standard business practices. These funds continue the deployment of these systems to the Department ICPs.

The MMSS will provide a radically improved functional capability to the services and DLA, reduce DoD costs for information services and establish a systems infrastructure on which DoD can improve the way it does business. Specific improvements include:

- -- Reduced inventories through better management
- -- Reduced labor requirements
- -- Reduced overhead costs
- -- Improved control of assets

FY 96/97 PRESIDENT'S **BUDGET SUBMISSION** 

COMPONENT/RIISINESS AREA/DATE		
	HENCHION	
	Materiel Management Standard System	
		•
Narrative Justification (continuation):		

Once implementation is completed, legacy applications will be reduced or eliminated, decreasing ADP costs markedly.

The projected reductions in the DoD inventories cannot be met without an improved supply management information infrastructure. In addition, the Department cannot comply with its objective to standardize information systems and business practices and effectively implement throughout the Department ICPs. This initiative supports the sustainment of readiness in a downsizing environment.

BUDGET SUBMISSION FY 1996 PRESIDENT'S

COMPONENT/BUSINES/S AREA/DATE NAVY/SUPPLY MANAGEMENT/JAN	ESS A	<i>REA/DATE</i> SMENT/JAN	UARY 1995			04 ITEM MINO	04 ITEM DESCRIPTION MINOR CONSTRUCT	4 ITEM DESCRIPTION MINOR CONSTRUCTION	z	
ELEMENTS OF COST	VTQ	FY 1995   UNIT   COST 	   TOTAL   COST 	YTQ	FY 1996   UNIT   COST 	TOTAL   COST 	QTV	FY 1997   UNIT   COST	TOTAL	
04 MINOR CONSTRUCTION					VAR	300		VAR	300	

Narrative Justification

alteration or replacement of existing real property to meet ever changing requirements. For example, construct main gates at both ASO & SPCC. Minor Construction - Minor construction is the erection, installation, or assembly of new real property, or the addition, expansion, extension,

### FY 1995 DBOF Capital Program Reconcilliation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Disposition of related funding

### S FY 1995 DBOF CAPITAL PURCHASES

	FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS	SNOI
	Department of the Navy (\$ in 000)	
<u>-</u> :	<ul> <li>Supply Management - Naval Supply Systems Command</li> <li>ADP Equipment/Joint Engineering Data Mgmt Info &amp; Control System</li> <li>b. Deferral</li> </ul>	\$32
	c. N/A. Obligational authority and TOA removed by Congressional action	
7	2. Logistics Support - Naval Supply Systems Command  a. Non-ADP Equipment/Hazardous Inventory Control System	1,910

æ	a. Software Development/Uniform ADP System for Stock Points Level II	<del>-</del> ;
ف	b. Cancellation	
Ü	c. N/A. Obligational authority and TOA removed by Congressional action	
٥	Logistics Support - Naval Supply Systems Command	

c. N/A. Obligational authority and TOA removed by Congressional action a. Software Development/Electronic Data Interchange b. Deferral

\$400

\$1,362

3. Logistics Support - Naval Supply Systems Command

c. N/A. Obligational authority and TOA removed by Congressional action

b. Deferral

### FY 1995 DBOF Capital Program Reconcililation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Explanation for cancellation or deferral and substitution

### DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

Department of the Navy (\$ in 000)	nd & Control System
Dep	<ol> <li>Supply Management - Naval Supply Systems Command</li> <li>ADP Equipment/Joint Engineering Data Mgmt Info &amp; Control System</li> <li>b. Deferral</li> <li>c. Congressional reduction to DBOF capital program</li> </ol>
	-

\$32

\$1,910

\$1,362

Command	
Systems	
Supply	
t - Nava	
Suppor	
Logistics	
~;	

a. Non-ADP Equipment/Hazardous Inventory Control System

b. Deferral

Congressional reduction to DBOF captial program

3. Logistics Support - Naval Supply Systems Command

a. Software Development/Uniform ADP System for Stock Points Level II Cancellation

c. Program completed earlier than anticipated

4. Logistics Support - Naval Supply Systems Command

a. Software Development/Electronic Data Interchange b. Deferral

Congressional reduction to DBOF capital program

\$400

### DEFENSE BUSINESS OPERATIONS FUND - NAVY FY 1996 / FY 1997 BUDGET ESTIMATE

### LOGISTICS SUPPORT ACTIVITIES BUSINESS AREA

### Background

The Navy Logistics Support Business area of the Defense Business Operations Fund provides for the management of miscellaneous supply related services to afloat and ashore customers in a specific geographic region. These services include contract management reviews, large and small procurements in support of fleet units, port services for docked ships, and the load out of combat logistics force ships for Fleet commanders.

Cost of this business area include, but are not limited to, civilian labor, military personnel at these installations, depreciation, and capital assets.

### Budget Highlights:

The revenue for Logistics Support through FY 1994 is recouped in the Wholesale surcharge. In FY 1995 and the outyears the following changes have been incorporated:

Personal Property: The costs to staff and operate the personal property offices located at the Fleet and Industrial Supply Centers (FISCs) have been removed from the Logistics Support business area and will be direct funded in O&M,N starting in FY 1995. DBOF Supply Operations costs have been reduced commensurately.

Retail Supply Management: The revenue required to cover management and operations costs of SERVMARTS and retail inventories at the FISCs has been removed from the Wholesale surcharge and is recouped directly from the retail customer who is benefiting from these services starting in FY 1995.

Direct Funding: After review of the numerous functions included in this business area it has been determined that some functions do not meet the four criteria established in the DBOF Improvement Plan. Therefore, these functions will be moved to direct O&M,N funding starting in FY 1996. The functions removed include: contracting, service craft, port services, terminal operations, outfitting and logistics support for Fleet units, and general and administrative costs incurred for others.

The remaining functions in Logistics Support are

regional logistics support functions, reimbursable fuel operations, reduced environmental costs, other support services, reduced real property maintenance, and capital purchases supporting the CONUS FISCs.

**Ouantitative Summary:** 

	FY 1994	FY 1995	FY 1996	FY 1997
Revenues (\$M)	\$248.6	\$225.0	\$126.6	\$125.5
Cost (\$M)	\$248.6	\$225.6	\$126.0	\$125.5
Net Operating Result	\$ 0	<b>\$6</b>	\$ .6	\$ 0
Accumulated Operating			·	•
Result	\$ 0	<b>\$6</b>	√ \$ 0	\$ 0
Civilian End Strength	3000	2172	123	123
Military End Strength	220	186	155	156
Civilian Workyears	3006	2375	155	153
Military Workyears	220	186	155	156

### Capital Budget:

This budget finances the procurement of capital equipment, management information systems, and minor construction. These items are depreciated over the useful life of the asset, with the cost of depreciation included in the material surcharge.

### LOGISTICS SUPPORT\_NAVY REVENUE & EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales:				
Operations	•	-		
Depreciation except Maj Const	6.9	17.3	19.6	21.8
Major Construction Depreciation	4.1	0.0		
Total Gross Sales	11.0	17.3	19.6	21.8
Other Income	64.8	65.6	<b>8</b> 1.5	77.5
Total Income	75.8	82.9	101.1	99.3
Expenses:				
Cost of Material Sold from Inventory	-			
Negotiated Purchases from Customers				
Transportation	0.0	0.0	0.0	0.0
Salaries and Wages:				
Military Personnel	12.4	9.4	7.4	7.4
Civilian Personnel	116.7	83.0	6.4	<b>6</b> .6
Materials, Supplies and				
Parts used in Operations	<b>23</b> .2	2.9	3.1	3.2
Facility Repair Charge	1.6	1.7	1.7	1.8
Depreciation - Capital	11.0	17.3	19.6	21.8
Contracted Engineering Services				
Lease Costs	3.1	3.2	3.2	3.2
Purchased Utilities	7.7	7.9	7. <b>7</b>	7.8
Purchased Communications	6.5	6.7	6.8	7.0
Equipment Maintenance	0.0	0.0	0.0	0.0
Fuel	(120)			/
Other Expenses	<b>6</b> 6.3	93.6	70.1	66.7
Total Expenses	248.6	225.6	126.0	125.5
Operating Result	-172.8	-142.7	-24.9	-26.2
Less Capital Surcharge				
Plus Appropriations Affecting NOR/AOR	.=		0= =	00.0
Other Changes Affecting NOR/AOR(Supply Mgt.)	172.8	142.1	25.5	26.2
Net Operating Result	0.0	-0.6	0.6	0.0
Accumulated Operating Result	0.0	-0.6	0.0	0.0

DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Miking of Dollers)

ğ	LOGISTICS SUPPORT													
		Cost of Operations	Price Growth		Program & Other	Cost of Operations	Price Growth		Program & Other	Cost of Operations	Price Growth	_	Program & Other	Cost of Operations
		1	Percent	Amount		7 585 5	Percent	Amount	Changes	FY 1998	Percent	Amount	Changes	FY 1997
	MILITARY PERSONNEL COMPENSATION						1	1			1	1		
9		6 331	0 028	0 177	1715	4780	8	7	90					
8	_	690 9	0 0 0 0 0	0.170	1641	4 568	0000	0 138	Ē	3 7 2 6			0 152	85 S
	Total Millary Personnel Compensation	12 390		0347	3336	9.361		0.282	-2.241	7.42		0.223	98.0	7.362
	CIVILIAN PERSONNEL COMPENSATION													
Š	Beautiful Carrest Carried Carr					3								
5 5		590 /0		010	28 814	90.761		2	-57.328	4.667		0 113	0025	4 805
\$	_			800	-7.801	22.22		0.476	-20 <b>86</b>	1.754		0.042	0.032	1.626
\$	_									0000				0000
\$	_			3						888				000
107	_					000				8				0000
	Total Chillien Personnel Compensation	116.726		2 919	36.615	83 030		1.710	-78 319	6.421		0.155	0.057	6 833
	INVENTORY PROCUREMENT											-	•	
;														
Ē {						0000				0000				0000
3			•			000				0000				
	_					0000				0000				
Ž	_					0000				0000				
8	•	0000		0000	0000	0000			0000	0000			5	
	Organic (DBOF)	0000		0000	0000								8 8	885
	From Army Dep Meint													
	From Navy Dep Maint													0000
	From Air Force Dep Metrit													888
	Contract								7					888
8	_					0000						1		0000
2	_					0000				8	•	•		
8						0000				8				0000
8	Commissary/Subsistence Purchases					0000				8				9000
211	Returns (for credit) from Customers					0000				8				000
	Total Inventory Procurement	0000	0000	0000	0000	0000		0000	0000	800		0000	0000	800
	TRAVEL													
Š		<u>9</u>		0000	0000	91.0		0000	-0.063	0.111			8	•
200	-	0 562	9200	0 0 16	0000	0 598	0000	0 0 0 1 0	-0 252	0 364	0000	0 011	800	0.375
8	MAC Passengers (DBOF)					0000		0000		0000		0000	:	0000
Š		977.0				0000		0000		0000		0000		0000
	and the same of th	9//0		900	800	0.792		0 0 0 1 0	-0 335	0.475		0 011	0000	0 498

DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Millions of Dollars)

2															
3									•						
		2000			Program	Cost of			Program	Cost of			Program	Cost of	
		FY 1994	Percent	Amened		Cyerations Fy 1994	Price Grown	1	# Open	Operations	Price Growth		& Other	Operations	
												Anorth		FY 1997	
3													}		
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		6 353	0 028	0.150	-2613	2.690	989	0 081	9 003	2.768	0000	0.063	0000	2.851	
È	- 1	17 873	0 020	0 200	-19 169	21.0	0000	0.00	0.143	0.333	0.030	0.010	0000	0.343	
	course mission and a coupling of course mission and coupling of coupling of course mission and coupling of couplin	22 22		0880	21.002	2.874		0.087	0.140	3.101		0.093	0.000	3.12	
	OTHER INTRAFUND (DBOF) PURCHASES														
515	Navy Data Automation Centers	7	7,00	92.9		3		2	-	3					
555		2					3	88	280	100	6/00	1	-0.300	4 015	
2		974	9000			8	9000			0000	900	0000		0000	
Š			7000	0.10		1 638	0000	6ZZ Q-	0 000	7.477	9 052	2	0.228	7	
3		900 0	200	989	9	18 447	0.00	-0 477	0.337	16 307	0 000	0.473	0.334	16 446	
3		0000	791.0	000		0000	000	0000		900	000	0000		0000	
		11 288	-0013	-0.147	0216	10 928	989	0.415	8	= 540	0.000	0.796	1,125	11 869	
2			0 208	2	7 9	10 533	0 196	-2 066	-2 684	5.763	0.064	0.369	0000	6.102	
	I otal moustrial Fund Purchases	48 402		2 020	0 924	49.480		200	-1,187	45.100		0.176	0.669	45.973	
	TRANSPORTATION											•			
Š	MAC Cergo (DBOF)					000		0000		0					
ğ	_				•			0000		000		000		000	
8						0000		0000		0000		000		0000	
Ξ						0.000				0000				0000	
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2								80.0		0000		000		0000	
					}	3		3	3	8		88.6	88.6	980	
	DEPRECIATIONAMORTIZATION														
8	_	1 050		0000	2.700	3 750		0000	0 109	3.659		000	0.116	3 975	
202	_	1 247		0000	4 892	6 239		0000		6.239		0000		6 239	
8	-	2 931		0000	1 300	4319		000	48	6 373	٠,	000	0 610	6 163	
8		1720		0000	1 274	2 994		0000	1113	4.107		0000	1 267	5374	
8	_			0000		0000		0000		0000		0000		0000	
8	_			0000		0000		0000		0000		0000		0000	
9	_	190		0000	4 18	0000		0000	0000	0000		0000	0000		
	Total Depreciation/Amortgation	11 048		0000	6 254	17,302	0000	0000	2.276	19 578	0000	0000	2 193	21 771	
	UIMEN PUNUMASEU SENVILES														

DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Millions of Dollars)

201	LOGISTICS SUPPORT													
		Cost of Operations	Price Growth	_	Program & Other	Cost of Operations	Price Growth	_	Program & Other	Cost of Doerstons	Price Growth		Program	Cost of
		FY 1994	Percent	Amount	Changes	FY 1995	Percent	Amount	Changes	FY 1996	Percent	Amount	Charges	FY 1997
				1	1		l	1				I	1	
90	Foreign National Indicact Hise (FNIH)	2.810						6						
8				3	07.1-				200			0000	0000	0000
	•	LBO O		180	200	0 023		0000	0 028	0000		0000	0000	0000
7				000	000	900		000	0000	0000		0000	0000	0000
5	_	0 247	0 020	100 0	0000	0 254	0000	0000	0 013	0.240	0000	0.007	0000	0.256
5	_	6 470	0 028	0 181	0000	0899	0030	0.200	-0.087	6.773	0000	0.203	0000	8 8 7 8
5		3117	0 028	0 087	0000	3204	0000	960 0	-0.150	3.150	0000	9600	0000	3.245
2	Printing & Reproduction	0000	0 0 0 0	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
22	_	0000	0 028	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
23	Facility Maintenance by Contract	1 615	0 028	0 045	0000	1 660	0000	0000	-0 002	1,700	0000	1900	0000	1750
ğ	Contract Consultants	0000	0 028	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
8	Contract Studies & Analysis	0000	0 028	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
ğ	Prof & Menegement Services by Contract	0000	0 020	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
ş	Contract Eng & Technical Sarvices (CETS)	0000	9200	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
ī	-	0000	8200	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Ë	_	0000	0 028	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
\$	ADPE Meintenance	0000	0 028	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
82	Software Development	0000	820 0	0000	0000	000	0000	0000	0000	0000	0000	0000	0000	0000
8	Reimburgements to Distribution Depots				0000	0000			0000	0000			0000	0000
Š	Reimbursements to DLSC/DAASO/DRMS				000	0000			0000	0000			0000	0000
8	Other Engineering Services & Support	0000	0 0 0 0	0000	000	0000	0000	0000	0000	0000	0000	0000	0000	0000
8	Other Intragovernmental Contracts	0000	0 028	0000	0.218	0 218	0000	0000	0.208	0.431	0000	0.013	0 000	0.451
8	Other Contracts	1618	0 028	0 045	-0 017	- 648	0000	0 0 0	0.041	1.736	0000	0.052	0000	1 788
8	Other Costs	20 227	0 028	0 566	28 581	47.374	0.030	1.421	-18 343	30 452	0000	0.914	-1.074	30 292
	Total Other Purchases	35 994		0 963	25 003	91 960		1.850	-10311	44.498		1,335	1.067	44 787
	TOTAL COST OF OPERATIONS	248 562		8 915	30 640	224.837		0 744	-96.977	128.604		1.893	1.609	130 206
									6					

	Logistics Support Capital Budget Summery Department of the Navy Date: January 1995 (\$ in Millions)	<b>.</b>		·					,
		=	7661	1.5	FY 1995		FY 1996	49	FY 1997
Number	Description	Quent	Total Cost	Ouent	Total Cost	Quant	Total Cost	Quent	Total Cost
0001	18. Non-ADP Equipment (>500,000) - Auto Material Mandling Sys (Replacement) - Mazardous inventory Control System (MICs)	-	0.780	-	0.000	-	0.300	-	0.300
	Subtotal Equipment (>500,000)	-	6.204	_	4.386	-	4.755	-	4.75
\$000	1b. Non-ADP Equipment (>25,000<500,000)	39	2.215	47	0.573	62	4.623	2	4.705
	Subtotal Equipment (>25,000<500,000)	39	2.215	2.7	0.573	29	4.623	2	4.705
7000	2. ADP Equipment (>25,0004100,000)		8.945		4.927		2.607		2.007
	Subtotal ADP Equipment (>25,000<100,000)		8.945		4.927		2.607		5.007
0000 0000 0007	0	2.6	7.280 0.223 0.000	8 N 9	4.889 0.238 0.476 0.079	9 N 9 -	5.843 0.238 0.477 0.079	8 w 4 -	6.861 0.256 0.512 0.085
0000	- Level 11 - UDAPS-SP/UZ	15.6	1.336 5.010	58.2	0.000	\$8.2	0.000	7 88	0.000
0011 0012 0013	- LOGMARS/EPOS - UADPS-ICP - Transportation	2.3	0.197 0.000 0.514	4mp	0.365 0.238 0.714	eno.	0.366	4. 6 w 0	0.392
7100	4. Minor Construction		0.787		0.003		0.800		0.800
	GRAND TOTAL CAPITAL PURCHASE PROGRAM	123	25.431	137	14.778	152	21.628	160	22.128

BUDGET SUBMISSION FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUA	NESS A	<i>REA/DATE</i> ORT/JANUA	RY 1995			01 ITEM AUTO	01 ITEM DESCRIPTION AUTOMATED MATE	PTION MATERIA	II ITEM DESCRIPTION AUTOMATED MATERIAL HANDLING	NG
ELEMENTS OF COST	QTV	FY 1995   UNIT   COST   	   TOTAL   COST 	7T0	FY 1996   UNIT   COST	TOTAL   COST 	QTY	FY 1997 UNIT COST	TOTAL	
01 AUTOMATED MATERIAL HANDLING SYS				_	VAR	300	_	VAR	300	

Narrative Justification

1941 and updated in 1985. This system consists of approximately 5 miles of tote pan conveyor used to transport binnable receipts to storage, issues Automated Material Handling System - The existing conveyor systems in Buildings 474, 475, and 452 at FISC Pearl Harbor were installed in to packing, and packed issues to shipping. The system has outlived its useful life. Maintenance costs are high and spare parts are hard to find

dependent upon availability of reliable AMHS. Funding for this project will allow FISC Pearl Harbor to increase utilization of both manpower and This project is imperative since fleet readiness and shorebased logistical support are equipment and will improve the efficiency and productivity of warehouse operations.

If not funded, this system will become a safety hazard and NAVSUP will continue to spend maintenance dollars on a system that has outlived its usefulness.

BUDGET SUBMISSION FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY	VESS ARE SUPPOI	E <i>adate</i> Rt/Janua	RY 1995			02 ITEM HAZAI SYS	<i>02 ITEM DESCRIPTION</i> HAZARDOUS INVEN SYSTEM	<i>Ption</i> Inventoi	2 ITEM DESCRIPTION HAZARDOUS INVENTORY CONTROL SYSTEM
ELEMENTS OF COST		FY 1995 UNIT COST	TOTAL COST	QTV	FY 1996   UNIT   COST	TOTAL   COST 	Λ Δ Τ	FY 1997 UNIT COST	TOTAL    COST
02 HAZARDOUS INV CONTROL SYSTEMS					VAR	4,455		VAR	4,455

Narrative Justification

Projected funding requirement based on detailed estimate for startup of FISC single service point at NAVBASE San Diego which was funded in FY FISC HAZMAT MANAGEMENT INITIATIVES: Establishment of comprehensive hazardous material reutilization prograins at all FISCs. 1992 as well as initial rough order magnitude (ROM) estimates from all other FISCs.

support a networked system. The fiscal year 1996 and 1997 requirements will fund 11 systems for operational shore activities in each fiscal year. HMC&M PROTOTYPE SYSTEM EQUIPMENT: Each installation is expected to cost approximately \$170-\$180K for initial hardware to

IMPLEMENTATION OF AFLOAT HAZARDOUS MATERIAL CONTROL SYSTEM: Funding is required to outfit all Navy afloat commands material which minimizes usage and reduces waste. FY 1996 and 1997 requirements will cover installation on all small ships, including submarines. with necessary hardware and software to operate the Hazardous Material Inventory Control System (HICS), a method for managing hazardous

### BUDGET SUBMISSION FY 1996 PRESIDENT'S

	ELEMENTS OF COST	SUPPC	NAVY/LOGISTICS SUPPORT/JANUA NAVY/LOGISTICS SUPPORT/JANUA 	RY 1995 	7 TQ T	FY 1996   UNIT   COST	03 ITEM FORK   TOTAL   COST	03 ITEM DESCRIPTION FORKLIFT TRUCKS	INCKS  (UCKS    FY 1997    UNIT    COST	  TOTAL    COST	
--	---------------------	-------	--	-------------	--------	-----------------------------	--------------------------------------	-------------------------------------	---	-----------------------	--

Narrative Justification

Forklift Trucks - This program funds the procurement of new/initial outfitting and replacement material handling equipment (MHE) requirements for the Fleet and Industrial Supply Centers (FISC) and Inventory Control Points (ICP).

Equipment which is not replaced at the end of it's expected service life becomes uneconomical to maintain, unsafe, unreliable, and unable to sustain damage, and leasing costs. New replacement equipment enables activities to meet handling and logistical requirements in an efficient and effective Additional intangible costs are also incurred, such as: increased manpower requirements, productivity losses, ineffective space utilization, material increased operational tempos. Many of the over-aged forklifts currently in service are technologically obsolete, impacting mission capabilities.

BUDGET SUBMISSION FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	INESS A	<i>READATE</i> ORT/JANUA	1RY 1995		03 ITEA OTHE	03 ITEM DESCRIPTION OTHER SUPPLY SUP	IPTION LY SUPPO	<i>3 ITEM DESCRIPTION</i> OTHER SUPPLY SUPPORT EQUIP
ELEMENTS OF COST	Q	FY 1995   UNIT   COST 	TOTAL  COST 	   FY 1996   UNIT   COST	TOTAL   COST 		FY 1997   UNIT   COST	TOTAL
03 SHOP & OFFICE EQUIP				 VAR	009		VAR	009
Narrative Justification	ua							

Shop and Office Equipment - This program replaces obsolete equipment which is beyond economical repair and procures new equipment which will enable a unit to perform more effectively. Items purchased are used at Fleet and Industrial Supply Centers (FISCs). Activities identify requirements annually. In the recent past, these requirements have exceeded funding available by a factor of 3 to 1. Needs are fulfilled based on priorities determined by the requestor and the Headquarters staff. Emphasis is given to replacing older equipment and to retrieval systems, communications systems, public works shop equipment, fuel testing equipment and mooring aids. If sufficient funding is not procuring those items which will provide productivity improvement. The following are examples of equipment procured under this program: provided, equipment will break down more frequently, impacting productivity and the safety of the workforce.

BUDGET SUBMISSION FY 1996 PRESIDENT'S

NAVY/LOGISTICS SUPPORT/JANUAL	SUPP	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUA	1RY 1995			03 ITEA COLL	03 ITEM DESCRIPTION COLLATERAL EQUI	<i>3 ITEM DESCRIPTION</i> COLLATERAL EQUIPMENT	ENT
ELEMENTS OF COST	QTY	PY 1995   UNIT   COST 	  T0TAL  C0ST 	QTV	FY 1996   UNIT   COST	TOTAL   COST	QTV	FY 1997   UNIT   COST	TOTAL
03 COLLATERAL EQUIPMENT	ļ				VAR	200		VAR	250

Narrative Justification

Collateral Equipment - Collateral equipment is essential for the initial outfitting of Military Construction projects. Examples of items procurred include forklift trucks, furniture, storage racks, etc.

and FY 1997 funds are requested for a partial outfitting of new BEQ at FISC Cheatham Annex and out outfitting of a new fire station at FISC Puget FY 1996 funds are requested for racks and MHE for a general purpose warehouse at FISC Guam and SERVMART addition at FISC Jacksonville, Sound.

BUDGET SUBMISSION FY 1996 PRESIDENT'S

	S SUPP	NAVY/LOGISTICS SUPPORT/JANUAR	RY 1995			CIVIL E0	CIVIL ENGINEERING EOUIPMENT	STIEM DESCRIPTION CIVIL ENGINEERING SUPPORT EQUIPMENT	UPPORT
ELEMENTS OF COST		FY 1995   UNIT   COST   	TOTAL	017	FY 1996 UNIT COST	TOTAL   COST 	710 7	FY 1997   UNIT   COST	TOTAL
03 CIVIL ENG SUPPORT EQUIP				63	VAR	2,400	73	30	2,200

Civil Engineering Support Equipment - This program funds the procurement of overaged non-passenger carrying vehicles (stake trucks, pickup/utility trucks and panel trucks/vans for FISCs and ICPs. Equipment which is not replaced at the end of its expected life becomes uneconomical to maintain, unsafe, and unreliable. At present, NAVSUP field activities have approximately 700 vehicles that will eventually need replacing.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

					FY 96/97	FY 96/97 PRESIDENT'S
COMPONENT/BUSINESS AREADATE NAVY/LOGISTICS SUPPORT/JANI	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	 05 ITI BLC	<i>05 item description</i> BLC	IPTION		
ELEMENTS OF COST		 4t0	FY 1996 UNIT COST	  TOTAL   COST  QTY   	FY 1997   UNIT   COST 	TOTAL     COST
05 BLC (Equipment)				2.207   0		12.207
Narrative Justification						

in a Mission Need Statement (MNS) approved by the Assistant Secretary of the Navy (ASN(RD&A)) and milestone decision authority was delegated to the Naval and the Defense Information Systems Office (DISO) data center, for NAVSUP managed activities and other activities using the Uniform Data Processing System for Stock Points (UADPS-SP). This interface will also support the CIM system which ultimately replaces UADPS-SP. The overall program concept is described Supply Systems Command (NAVSUP). The program consists of a number of individual and independent Abbreviated System Decision Papers (ASDPs) which Base Level Computar. Base Level Computing (BLC) is a program designed to replace and upgrade the aging interface between the end user at the keyboard conform to the overall concept described in the approved MNS. The ASDPs include the justification and economic analysis associated with the work at each individual site.

During FY96 and FY97 we will continue equipment installations at Fleet Industrial Supply Centers (FISCs) which began in FY94 and FY95 and will begin work locates processing at the most economical and technically efficient level, and is consistent with overall DoD information system plan. If executed in accordance The BLC Program is phased over time and the initial installations should be completed in FY97 although equipment will be replaced continuously in the future. at other smaller activities. The ultimate goal is to build an architecture which will support a three tier computing and information system architecture which with the overall plan described in the MNS, the BLC Program will, over time, significantly improve ashore supply processing for the fleet.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	VESS AREADATE SUPPORT/JANI	JARY 1995		<i>05 ITEM DES</i> LOGMARS	<i>05 ITEM DESCRIPTION</i> LOGMARS	PTION			,
ELEMENTS OF COST			 	<u> </u>	FY 1996   UNIT   COST	TOTAL COST QTY	YT	FY 1997   UNIT   COST   	  TOTAL  COST 
05 LOGMARS (Equipment)			 	0	0	2.400	•		2.300

Narralive Justification

physical inventory, inventory location survey, material receiving and issue, and government property accounting as documented in the final report of the OSD-LOGILARS. The Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) funds provide ships and stock points with capability to "read" bar coded information for entry into existing computer systems. LOGMARS has generated significant cost avoidance savings in the functional area of sponsored LOGMARS Steering Group. In order to utilize bar coded data, the funding will provide the necessary equipment and programs to interface with existing computer systems. With greater emphasis on acquisition of commercial products and the associated bar codes, this will place greater emphasis on automated source data entry initiatives. Increased productivity, data accuracy, and visibility and control of inventories will be realized with LOGMARS echnology.

Funding continues to equip Navy activities ashore and afloat with bar code equipment and programs. As equipment ages and technology advances, there will continue to be a need to replace obsolete equipment and old equipment that breaks down as the cost for repair approaches the cost of replacement. Also, replacement equipment is required when equipment is no longer being manufactured.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

	7 1995
MTE	JANUAR
COMPONENT/BUSINESS AREA/DATE	NAVY/LOGISTICS SUPPORT/JANUARY 1995
VT/BUSINE	SISTICS
OMPONEN	AVY/LOC
Ü	Z

05 ITEM DESCRIPTION LOGMARS

DMRD 987 Inventory Reduction Plan Improvement (IRP) specifically cites LOGMARS as a new technology that the services must continue to implement to enhance readiness, responsiveness, productivity inventory control and the overall quality of support.

000091

BUDGET SUBMISSION BV 96/07 PRESIDENTIC

								NA LE	FI 20/2/ LABOIDENI'S
COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	<i>NESS AREA/</i> B S SUPPORT/	<i>ATE</i> JANUARY	. 1995		II ITE UADE	II ITEM DESCRIPTION UADPS-SP/U2	PTION		
ELEMENTS OF COST				 	QTV	FY 1996   UNIT   COST 	  TOTAL   COST  QTY       		TOTAL
11 UADPS-SP/U2 (Equipment)				 			- 1.000	 _	

(FISCs) and partner sites (the FISCs become the Navy's primary provider of regional logistics support services). All expenditures of these funds are supported by business case analyses. These investments fully support both the Defense Information Infrastructure (DII) initiative and the Regional Maintenance plan endorsed by the Chief of Naval Operations.

FY 96/97 PRESIDENT'S **BUDGET SUBMISSION** 

NAVY/LOGISTICS SUPPORT/JANUARY 1995	AKEADATE PORT/JANUARY 1995	TOT -	UN ITEM DESCRIPTION LOGMARS/EPOS	POS			
ELEMENTS OF COST		 	FY 1996   UNIT   COST   	TOTAL   COST  QTY 	<u> </u>	FY 1997 UNIT COST	  TOTAL  COST   
09 LOGMARS/EPOS  (CDA)		 	4.6   79.481	366	9.4	85.305	392

กกกกๆว

LOGIMARS - The Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) equipment funding provides ships and stock points with report of the OSD-sponsored LOGMARS Steering Group. Increased productivity, data accuracy, and visibility and control of inventories will be realized with functional area of physical inventory, inventory location survey, material receiving and issue, and government property accounting as documented in the final the capability to "read" bar coded information for entry into existing computer systems. LOGMARS has generated significant cost avoidance savings in the LOGMARS technology, and these benefits contribute to improved Fleet support and readiness.

The CDA efforts reflected here support software modifications required to implement Electronic Point of Sale (EPOS) initiatives within the LOGMARS technology.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

NAVY/LOGISTICS SUPPORT/JAN	<i>COMPONENT/BUSINESS AREA/DATE</i> NAVY/LOGISTICS SUPPORT/JANUARY 1995	 11 ITE. Comp	II ITEM DESCRIPTION Compact Disc-Read O	I ITEM DESCRIPTION Compact Disc-Read Only Memory (CD-ROM)	Memory	(CD-RO	<b>S</b>
ELEMENTS OF COST		 7T0	FY 1996 UNIT COST	TOTAL   COST  QTY 		FY 1997 UNIT COST	TOTAL   COST 
11 CD-ROM (CDA)		 	79.481		9	85.305	1.512

2,500 pounds of paper, takes up 120 feet of shelf space and costs \$958 to mail. A single CD-ROM weighs 0.7 ounces, takes less than an inch of space and costs currency, consistency, security, and the accessibility of information. This product provides massive storage capacity, saves money on warehousing and mailing CD-ROM: The Compact Disc-Read Only Memory (CD-ROM) provides information digitally for direct use with personal computers replacing both paper and costs, and increases productivity by providing data in a rapid lookup and retrieval mode. A single CD-ROM can hold 300,000 pages of text which equates to microfiche as a means to distribute manuals, publications, and data bases. CD-ROM is one of the technologies whose primary importance is increasing the \$.75 to mail. CD-ROM is the most practical and economical media for the multiple distribution of digital data. Real savings are to be achieved from the reduction of printing, decreased mailings, less necessary manpower for the handling of documents, and the diminished need for warehouse space.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

ELEMENTS OF		COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	S AREA/DATE JPPORT/JANUA	ARY 1995		II ITE ITIM	II ITEM DESCRIPTION ITIMP EDI UADPS-ICP (CDA)	IPTION NDPS-IC	P (CDA)			
11 ITIMP EDI UADPS-	0	ELEMENTS OF COST			 	<u>y</u> T <u>0</u>	FY 1996   UNIT   COST 		VTQ	FY 1997   UNIT   COST   	TOTAL  COST 	
	00095	II ITIMP EDI UADPS-ICP (CDA)			 	e	79.481		е .	85.305   85.305	.256	.

IIIMP. These Central Design Agency (CDA) resources will be modifying ADP programs for enhancements to Integrated Technical, Item Management and Procurement (ITIMP) to accommodate Inventory Control Point (ICP) procurement Electronic Data Interchange (EDI) including expanding upon baseline transactions to incorporate the 841 transaction set for commercial and organic manufacturing solicitations.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

ELEMENTS OF		COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	VESS A	REA/DA ORT/J	<i>te</i> Anuary	\$661.		700 100	EM DESC NPS-SPA	08 ITEM DESCRIPTION UDAPS-SP/UADPS-2			
	000	ELEMENTS OF COST								TOTAL    COST  QTV 		FY 1997   UNIT   COST   	   TOTAL   COST 
	0096	08 UADPS-SP/U2						42.	9   79.48	1 3.412	49.8	   85.305 	

Education and Training, Chief of Naval Reserves, Comptroller of the Navy, and Commandant of the Marine Corps. This system is operated primarily at Defense Industrial Supply Centers (FISCs), Naval Air Stations, Naval Shipyards and Training Centers. The UADPS-SP system provides uniform logistics data support to management application system designed to support Navy operating forces. It is a Navy legacy system operated at over 35 Naval Commands including Fleet and UDAPS-SP/U2- The Uniform Automated Data Processing System for Stock Points (UADPS-SP) is the Navy-wide automated supply, financial and resources the Chief on Naval Operations, Commander in Chief Atlantic Fleet (CINCLANTFLT), Commander in Chief Pacific Fleet (CINCPACFLT), Chief of Naval Information Systems Agency (DISA) ADP installations and at several remote activities.

**BUDGET SUBMISSION** FY 96/97 PRESIDENT'S

08 ITEM DESCRIPTION	UDAPS-SP/UADPS-2	
COMPONENT/BUSINESS AREA/DATE	NAVY/LOGISTICS SUPPORT/JANUARY 1995	

### Narrative Justification

The Central Design Agency (CDA) efforts reflected herein are directed toward complying with OSD/Congressionally-mandated changes, and corrective software maintenance efforts. An additional CDA effort for this AIS has been directed toward incorporating the FISC facts of CNO Management Review Initiative #20 which provides the necessary functionality to complement Corporate Information Management (CIM) enterprise-wide systems. Specifically, these efforts provide the necessary management tools:

- To reduce inventory and infrastructure costs through centralized inventory management and expanded regional asset visibility.
- To supply centralized management of separate consumer inventories to the "wrench-turner" level.
- To consolidate geographic "stovepipe" inventories under a single ADP system to achieve personnel and inventory.
- To expand consumer level asset visibility and sharing.
- To achieve cost avoidance as legacy systems are eliminated.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

Z	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	ESS AREADA SUPPORT/JA	<i>TE</i> NNUARY 1995		 6 ITEM I APADE	06 ITEM DESCRIPTION APADE	PTION			
ELEM	ELEMENTS OF COST				 ¥ 7 0	FY 1996 LUNIT COST	TOTAL COST QTY	QTV	FY 1997   UNIT   COST   	  TOTAL  COST 
90	06 APADE (CDA)				 e •	79.481	1.238	<b>m</b>	85.305	1.256
Nav	Narrative Justification	-	_	_	_				_	_

0 , Industrial Supply Center (FISC) procurement centers.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	VESS AI	READAI ORT/JA	re NUARY I	995		II ITEM D E-MAIL	II ITEM DESCRIPTION E-MAIL	IPTION				
•	ELEMENTS OF COST					 	QTV	FY 1996   UNIT   COST   	TOTAL   TOTAL   COST  QTY 	10TY	FY 1997   UNIT   COST     	   TOTAL   COST   	
00099	II E-MAIL (CDA)					 	_	79.481	  -079 	<b>-</b>	   85.305   	.085   .085	
)	Narrative Justification												

E-MAIL- NAVSUP is installing a corporate wide electronic mail facility with Hub located in Mechanicsburg, Pa. We will use a small number of Fleet Material Support Office (FMSO) resources to manage the mail hub, install new users, and provide new Internet capabilities through the installation of a new Internet Domain Name System.

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	INESS . S SUPI	PORT/J.	I <i>te</i> Anuar	Y 1995			11 ITEN LAN	II ITEM DESCRIPTION LAN	IPTION				1
•	ELEMENTS OF COST							VTQ	FY 1996   UNIT   COST	TOTAL    TOTAL    COST  QTV 	QTY	FY 1997   UNIT   COST   	  TOTAL  COST 	
	(CDA)							4	79.481	318	4	85.305	341	-
-	Narrative Justification	2										-		-

(UADPS-SP). NAVSUP plans to use Fleet Material Support Office (FMSO) resources for some of the LAN installations. These resources will also be used to LAN- In accordance with the overall Base Level Computing (BLC) concept as described in the approved Mission Needs Statement (MNS), NAVSUP will be installing Local Area Networks (LANS) in a number of small activities that are users of the Uniform Automatic Data Processing System for Stock Points establish a help desk to provide technical support and trouble shooting services to activities with installed LANS. The LAN installations at small sites are supported by an approved Abbreviated System Decision Paper (ASDP).

BUDGET SUBMISSION FY 96/97 PRESIDENT'S

	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANI	COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	 11 ITE	II ITEM DESCRIPTION TRANSPORTATION	IPTION FION				1
0	ELEMENTS OF COST		 	FY 1996   UNIT   COST	TOTAL     COST   QTY   	φτν	FY 1997   UNIT   COST 	TOTAL COST	
00101	TRANSPORTATION (CDA)		 6	79.481	115	6	   85.305   	.768	

Iranspartation. The funds provide for development of the Navy Material Transportation Office Managment Information Systems's Budget Management System and integration of the Transportation Operations Management System.

### FY 1995 DBOF Capital Program Reconcililation

### Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Disposition of related funding

# FY 1995 DBOF CAPITAL PURCHASES UNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

	FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, S
	Department of the Navy (\$ in 000)
<del>-</del>	Supply Management - Naval Supply Systems Command   a. ADP Equipment/Joint Engineering Data Mgmt Info & Control System  b. Deferral  c. N/A. Obligational authority and TOA removed by Congressional action
7	<ol> <li>Logistics Support - Naval Supply Systems Command</li> <li>Non-ADP Equipment/Hazardous Inventory Control System</li> <li>Deferral</li> <li>N/A. Obligational authority and TOA removed by Congressional action</li> </ol>
က်	Logistics Support - Naval Supply Systems Command  8. Software Development/Uniform ADP System for Stock Points Level II  b. Cancellation  c. N/A. Obligational authority and TOA removed by Congressional action
4	4. Logistics Support - Naval Supply Systems Command

\$1,910

\$1,362

\$32

a. Software Development/Electronic Data Interchange b. Deferral c. N/A. Obiigational authority and TOA removed by Congressional action

\$400

### FY 1995 DBOF Capital Program Reconcilliation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Explanation for cancellation or deferral and substitution
  - - Explanation for cancellation or deferral and substitution

### DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

Department of the Navy  (\$ In 000)  Supply Management - Navel Supply Systems Command  B. ADP Equipment/Joint Engineering Data Mgmt Info & Control System  b. Deferral	Department of the Navy (\$ In 000)	rol System
	Department of the (\$ in 000)	upply Management - Navel Supply Systems Command • ADP Equipment/Joint Engineering Data Mgmt Info & Cont • Deferral

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c. Congressional reduction to DBOF capital program

a. Non-ADP Equipment/Hazardous Inventory Control System

\$1,910,

\$32

b. Deferral

c. Congressional reduction to DBOF captlel program

3. Logistics Support - Naval Supply Systems Command

a. Software Development/Uniform ADP System for Stock Points Level II

\$1,362

Cancellation

c. Program completed earlier than anticipated

a. Software Development/Eiectronic Data Interchange 4. Logistics Support - Naval Supply Systems Command

b. Deferral

c. Congressional reduction to DBOF capital program

\$400

•:

000105

### DEFENSE BUSINESS OPERATIONS FUND - NAVY FY 1996 / FY 1997 BUDGET ESTIMATE

### DISTRIBUTION DEPOTS

The Navy Distribution Depots business area of the Defense Business Operations Fund provides for the management and operation of the distribution function of the Fleet Industrial Supply Centers at Pearl Harbor, HI.; Yokosuka, Japan; and Guam. Their mission is to provide material distribution services (basic receipt, storage, issue and delivery of material) to afloat and ashore customers in a specific geographic region. Costs of this business area include, but are not limited to, civilian labor, military personnel at these installations, a portion of the Headquarters costs related to distribution, and depreciation of capital assets. The majority of revenue received by the Distribution Depots is provided by, and reflected in the cost of the Supply Management business area.

### Budget Highlights

Consolidation: The Supply Management surcharge has borne the cost of the Navy Distribution Depot business area and is the sole customer of the services provided by the Distribution Depots. Consequently, starting in FY 1996, the Distribution depot business area will be incorporated into the Supply Management business area.

$\mathbf{w}$	7 k l	020	•

	FY 1994	FY 1995	FY 1996	FY 1997
Receipts and Issues	1.924	1.887	1.867	1.729
(In millions)				

### Performance Indicators:

Unit Cost	\$32.12	\$33.36
Ouantitative Summary:		

Revenue (\$M)	\$87.6	\$52.4
Cost (\$M)	\$87.6	\$52.1
Net Operating Result	0	\$.3
Accumulated Operating	Result 0	\$.3
Civilian End Strength	(yrs) 1286	1338
Military End Strength	(yrs) 220	264
Civilian Workyears	1093	1205
Military Workyears	220	264

### Capital Budget:

The FY 1996 and FY 1997 capital budget requirements are reflected in the capital budget of the Supply Management business area.

### DISTRIBUTION DEPOTS - NAVY REVENUE & EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:		******		******
Gross Sales:	•			•
Opérations	•			
Depreciation except Maj Const	0.6	9.4		
Major Construction Depreciation	1.0	0.0		
Total Gross Sales	1.6	9.4	•	
Other Income	11.5	5.4		
Other moome	11.5	5.4		
Total Income	13.1	14.8		
Expenses:				
Cost of Material Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	0.0	0.0		
Salaries and Wages:				
Military Personnel	10.1	8.7		
Civilian Personnel	20.7	18.5		
Materials, Supplies and				
Parts used in Operations	12.5	3.4		
Facility Repair Charge	0.6	0.3		
Depreciation - Capital	1.6	9.4		
Contracted Engineering Services		•		
Lease Costs	3.2	0.6		
Purchased Utilities	3.2	0.6		
Purchased Communications	2.4	0.2		
Equipment Maintenance	0.0	0.0		
Fuel	0.0	0.0		
Other Expenses	33.4	10.3		
Total Expenses	87.6	52.0		
Operating Deput	745	07.0		
Operating Result	-74.5	-37.3		
Less Capital Surchg Reservation				
Plus Appropriations Affecting NOR/AOR				
Other Changes Affecting NOR/AOR (Supply Mgt) Inventory Gains and Losses	74.5	37.6		
Net Operating Result	0.0	0.3		
Accumulated Operating Result	0.0	0.3		

DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Millions of Dollars)

ă	DISTRIBUTION DEPOTS													
		Operations FY 1994	Price Growth	Amount	A Other	Cost of Operations FY 1995	Price Growth	1	& Other	Cost of Operations	Price Growth		Program & Other	Cost of Operations
														À L
	MILITARY PERSONNEL COMPENSATION													, s
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										}			3	8
	CIVILLIAN PERSONNEL COMPENSATION													
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	INVENTORY PROCUREMENT								•					
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\$										0000				0000
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	From New Dec Maint													886
	From Air Force Dep Maint									0000				8
	Contract									0000				000
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8	9 Commissary/Subsidence Purchases					88				0000				0 000
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	TRAVEL													
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30,	7 Leased Vehicles					0000		0000		0000		0000		0000
	Total Travel	0 023		0000	0000	0 023		000	-0 024	0000		0000	0000	0000
	MATERIAL, EQUIP & SUPPLIES (INTERNAL OPS)													
9						8								
•	11 Fuel Purchases (Uther than from Supp Ops)			2		0000		0000		0000		0000		0000

DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Millions of Dollers)

DIS.	DISTRIBUTION DEPOTS														
		Cost of Operations	Price Grand		Program	Cost of			Program	Cost of			Program	Cost of	
		FY 1994	Percent	Amount	Changes	FY 1995	Percent	Amount	Changes	Operations FY 1996	Price Growth Percent	Amount	& Other Changes	Operations FY 1997	
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	OTHER INTRAFUND (DBOF) PURCHASES														
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	TRANSPORTATION														
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2	Other Transportation					000		000		8 8		980		0000	
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	DEPRECIATION/AMORTIZATION											,			
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	Total Depreciation/Amortization	1 600		0000	7 750	\$ 350	0000	000	-9 350	000	0000	800	000	0000	
	OTHER PURCHASEO SERVICES														
90	Foreign National Indirect Hire (FNIH)	7 429		6900	-5.209	3700		,							
905		0 230		0 003	-0 163	0.00			900			0000		000 0	
912	SLUC (GSA Leases)			0000	0000	0000			• •	8 8		0000		0000	
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DEPARTMENT OF THE NAVY SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES (In Millions of Dollars)

				Program					7			1	
	Cost of Operations			0	_	Price Gross	£	A Other	Operations			F 00 4	Cost of
	FY 1994		Amount	Changes		Percent		Charges	FY 1996		Amount	Charges	FY 1997
3 Purchased Utilities (Non DBOF)	6200	6200	5	4	-	} 	•		8		1	1	
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TOTAL COST OF OPERATIONS	67.625		2 675	38.232	52.058		0.852	-62 820	8		8	8	
							!				3	3	3
	913 Purchased Utilities (Non DBOF) 914 Purchased Communications (Non DBOF) 915 Rents & Leases 917 Postal Sarvices 921 Printing & Reproduction 922 Equipment Maintenance by Contract 923 Equipment Maintenance by Contract 924 Contract Consultants 924 Contract Consultants 925 Contract Consultants 926 Contract Consultants 927 Equipment Sarvices by Contract 928 Contract Eng & Technical Sarvices (CETS) 929 Frof & Management Sarvices by Contract 929 Contract Eng & Technical Sarvices (CETS) 920 Frof & Management Sarvices by Contract 920 Frof & Maintenance 922 Software Development 923 Reimbursements to Distribution Depots 926 Other Engineering Sarvices & Support 927 Other frequencents of Sarvices & Support 928 Other Engineering Sarvices 928 Other Engineering Sarvices 928 Other Engineering Sarvices 928 Other Engineering Sarvices 929 Other Engineering Sarvices 929 Other Engineering Sarvices 929 Other Engineering Sarvices 939 Other Engineering Sarvices 939 Other Engineering Sarvices 939 Other Engineering Sarvices 939 Other Engineering Sarvices 930 Other Engineering 931 Other Managements 932 Contract	Purchased Utilities (Non DBOF) Rents & Leases Postal Services Printing & Reproduction Equipment Maintenance by Contract Equipment Maintenance by Contract Contract Consultants Contract Consultants Contract Consultants Contract Studies & Analysis Prof & Management Services by Contract Contract Consultants Contract Consultants Contract Consultants Contract Consultants Contract Studies & Analysis Prof & Management Services by Contract Contract Contract Services (Supply Ope only) ADPE Maintenance Software Development Reimbursements to Distribution Depots Reimbursements to Distribution Depots Reimbursements to Distribution Depots Reimbursements Services & Support Other Contracts Other Contracts TOTAL COST OF OPERATIONS	Purchased Utilities (Non DBOF)   Porcent FY 1994   Percent Price Growth FY 1994   Percent Portines of Children (Non DBOF)   2449   0.028   Printing & Revise & Lease   3243   0.028   Printing & Revise & Lease   316   0.028   Printing & Reproduction   0.000   0.028   Printing & Reproduction   0.000   0.028   Printing & Reproduction   0.000   0.028   Printing & Reproduction   0.000   0.028   Printing & Lease & Analysia   0.000   0.028   Printing & Lease & Analysia   0.000   0.028   Printing & Lease & Analysia   0.000   0.028   Printing & Lease & Analysia   0.000   0.028   Printing & Lease & Lease & December &	Purchased Utilities (Non DBOF) Purchased Communications (Non DBOF) Rents & Leese Rents & Leese Rents & Leese Printing & Reproduction Equipment Methodromy Contract Contract Studies & Analysis Technical Districture Studies Contract Reimbursements to Districture Depote Reimbursements to Districture Depote Reimbursements to Districture Analysis Other Engineering Sanices & Support Other Engineering Sanices & Support Other Costs Total Other Costs Total Other Purchases  TOTAL COST OF OPERATIONS 87 2338	Purchased Utilities (Non DBOF)   Purchased Utilities (Non DBOF)   Purchased Communications (Non DBOF)   2 449   Percent	Purchased Utilities (Non DBOF)   Purchased Utilities (Non DBOF)   Purchased Communications (Non DBOF)   2 449	Purchased Utilities (Non DBGF)	Purchased Utilities (Non DBOF)   Purchased Christians (Non DBOF)   Purch	Purchased Utilities (Non DBCF)   Purchased Chillièses (Non DBCF)   Purchased Chillièses (Non DBCF)   Purchased Chillèses (Non DBCF)   Purchased Chillèses (Non DBCF)   Purchased Communications (Non DBCF)   2449   0.028   0.001   -0.029   0.000	Purchased Cumunications (Non DBCF)   Purchased Communications (Non DBCF)   Purchased Communications (Non DBCF)   Purchased Communications (Non DBCF)   2449   Purchased Communications (Non DBCF)   2449   Order   O	Purchased Utilities (Non DBOF)   Purchased Communications (Non DBOF)   Purchased Communications (Non DBOF)   Purchased Communications (Non DBOF)   2449   Purchased Communications (Non DBOF)   2449   Order	Purchased Utilities (Not DBOF)   Purchased Communications (Not DBOF)   Purchased Utilities (Not DBOF)   Purchased Utilities (Not DBOF)   Purchased Communications (Not DBOF)   Purchased Utilities (Not DBOF)   Purchased Communications (Not DBOF)   Purchased Co	Purchased Utilities (from DBCF)   Purchased Communications (from DBCF)   Purchased Utilities (from DBCF)   Purchased Communications (

	Distribution Depots Capital Budget Summary Department of the Mavy Date: January 1995 (\$ in Millions)	Mary							,
Line		A	FY 1994 FY 1995	19		1	FY 1996	F	FY 1997
NUMBER		Quant	Quant Total Cost	Quent		Quant	Cost Quant   Total Cost   Quant   Total	Quent	Total Cost
1000			0.739		0.526		0.000		0.000
	Subtotal Equipment (>500,000)		0.739		0.526		0.000		0.000
	GRAND TOTAL CAPITAL PURCHASE PROGRAM		0.759		0.526		0.000		0.000

# DEPARTMENT OF THE NAVY DEFENSE BUSINESS OPERATIONS FUND NAVAL SHIPYARDS

### **ACTIVITY GROUP FUNCTION:**

Naval Shipyards provide logistic support for assigned ships and service craft; perform authorized work in connection with construction, overhaul, repair, alteration, drydocking and outfitting of ships and crafts as assigned; perform design, manufacturing, refit and restoration, research, development and test work, and provide services and material to other activities and units as directed by competent authority.

### **ACTIVITY GROUP COMPOSITION:**

There are eight naval shipyards operating under the Defense Business Operations Fund (DBOF). These activities and their locations are:

Charleston Naval Shipyard	Charleston, SC
Long Beach Naval Shipyard	Long Beach, CA
Mare Island Naval Shipyard	Vallejo, CA
Norfolk Naval Shipyard	Portsmouth, VA
Pearl Harbor Naval Shipyard	Pearl Harbor, HI
Philadelphia Naval Shipyard	Philadelphia, PA
Portsmouth Naval Shipyard	Kitterey, ME
Puget Sound Naval Shipyard	Bremerton, WA

### **OVERVIEW FOR NAVAL SHIPYARDS:**

Effective in FY 1996, the three shipyards scheduled for closure, Charleston, Mare Island and Philadelphia, will cease operating under DBOF. These closing yards face the task of completing their remaining mission work as efficiently as possible, while at the same time phasing down toward closure. The mission cessation and operational closure dates for the closing yards are:

	Mission Cessation	Operational Closure
Charleston	Aug 1995	Apr 1996
Mare Island	Apr 1995	Apr 1996
Philadelphia	Sep 1995	Sep 1996

The continuing yards face very different challenges, as we reduce our work force in response to the decline in the Navy maintenance program while at the same time continuing our strong commitment to productivity improvement and cost efficiency. This budget submission reflects that commitment as we continue our implementation of various productivity and cost initiatives, including Advanced Industrial Management (AIM), throughout the shipyard community.

### WORKLOAD:

Direct labor civilian mandays are:

		(mandays in	thousands)	
	FY 1994	FY 1995	<u>FY 1996</u>	FY 1997
Closing Yards	2,229	1,491	-	-
Continuing Yards	<u>4.184</u>	<u>4,059</u>	<u>3.895</u>	<u>3,481</u>
Total mandays	6,413	5,550	3,895	<b>3,48</b> 1

Workload at closing shipyards includes 281 thousand mandays in FY 1994 and 673 thousand mandays in FY 1995 funded from the Base Realignment and Closure (BRAC) account. Workload in FY 1995 at the continuing shipyards is projected to be 113 thousand mandays below the President's Budget. These workload decreases are primarily due to the decreased work package on the USS Memphis at Portsmouth NSY and deleted availabilities and other workload changes at Puget, Pearl Harbor, Portsmouth and Long Beach shipyards. Partially offsetting these decreases are increases in FY 1995 at Norfolk NSY for authorized additional work and schedule changes on USS Saipan and USS LaSalle. The FY 1996 estimate reflects realignment of supervisory hours from direct to overhead in accordance with DoD guidance. Without his realignment, the number of direct labor mandays at the continuing yards would increase by about 4.8 percent in FY 1996 as compared to FY 1995. In FY 1997, workload declines as the Navy continues to reduce funded maintenance requirements.

### **STAFFING:**

Staffing levels decline, as the closing yards phase downward toward closure and the open yards continue to reduce staffing levels in order to control operating costs. For the open yards end strength declines 20.9% (or 7,197) from the beginning of FY 1994 to the end of FY 1997, as they reduce cost in line with workload reductions and the need to maintain competitive manday rates. Projected military and civilian strength estimates are as follows (FY 1994 are actual):

	FY 1994	FY 1995	FY 1996	FY 1997
<b>CLOSING YARDS</b>				
End year Strength				
Civilian	12,133	5,251	•	-
Military	<u>316</u>	<u>94</u>	Ξ	Ξ
Total	12,595	5,354	-	-
Workyears	•			
Civilian	14,094	9,728	-	-
Military	<u>316</u>	<u>125</u>	Ξ	Ξ
Total	14,410	9 <b>,85</b> 3	-	-
CONTINUING YARDS				
End year Strength				
Civilian	29,719	29,619	<b>29,50</b> 9	<b>26</b> ,994
Military	<u>375</u>	<u>277</u>	<u>253</u>	<u>251</u>
Total	29,991	<b>2</b> 9, <b>895</b>	29,762	27,245

<u>Workvears</u>				
Civilian	31,182	29,001	29,509	27,419
Military	375	284	<u>277</u>	<u>251</u>
Total	31,554	29,285	<b>29,786</b>	27,670

### **CUSTOMER RATES:**

Customer rates, calculated and imposed on a program induction year basis, increase by an average of 0.0% from FY 1995 to FY 1996 and by an average of 4.9 percent from FY 1996 to FY 1997.

### **UNIT COST:**

Unit cost, which is the composite average cost per direct labor hour of producing goods and services in the current fiscal year, is projected to be \$78.38 per hour in FY 1996 and \$83.51 per hour in FY 1997.

### **HEADOUARTERS COSTS:**

Headquarters cost declines in the current submission, as the number and size of the shipyards decline:

		(\$mill	ions)	
	FY 1994	FY 1995	FY 1996	<u>FY 1997</u>
Headquarters	\$8.6	\$8.9	\$8.2	\$7.5

### PRODUCTIVITY:

Continuous efforts are underway to improve and streamline work processes in order to accomplish the planned levels of performance and productivity. Advanced Industrial Management (AIM) is a major process improvement affecting most of the shipyards' functional areas. It is an engineering process for industrial operations at naval shipyards. It will improve performance by:

- Providing disciplined work planning, estimating and scheduling functions.
- Delivering simplified and complete work documents to the mechanic.
- Applying group and zone technology.
- Promoting data management and integration.
- Reshaping and downsizing the organizational structure to take advantage of the improved process.

To achieve these performance improvements, the AIM Program focuses on three major components:

• Process - The process standardizes planning and work procedures and the products produced by these procedures so they can be accessed and reused by all shipyards. the process also allows flexible packaging of work (by zone, trade skill, resource, system, etc.) to promote efficient resource management.

- Organization The shipyard organizational and management structure has been changed to reflect the project orientation of the improved process.
- Information Technology New automated tools are developed to support the portions of the process that cannot be satisfied with the existing systems. All automated systems (new and old) are integrated to provide a single point of entry for each user, a common man-machine interface, and standard software that can be easily maintained.

### Examples of other productivity improvements include:

- Long Beach NSY has initiated a pilot program, establishing a compressed work week of four ten hour days. In FY 1994 this schedule was tested on two availabilities with very promising results, including lower overtime usage, lower sick leave, quality of life improvement in the tree-day weekends for sailors on ships in overhaul which are homeported in San Diego, and reduced air pollution in the elimination of one commuting day.
- Various shipyards including Long Beach, Norfolk, Pearl Harbor and Puget Sound have begun plant equipment excessing programs and infrastructure consolidation programs in order to reduce plant capacity in line with reductions in workload. By consolidating into fewer facilities and excessing unnecessary plant equipment, maintenance and depreciation costs can be reduced.
- Puget Sound NSY has developed a process improvement which employs shot blasting to remove hazardous materials from submarine hulls, thereby reducing recycling labor by approximately \$331 thousand per hull.

### FINANCIAL PROFILE:

THANCIAL LIVOI ILL.				
		(\$m	illions)	
	FY 1994	FY 1995	FY 1996	FY 1997
Revenue	3,585.3	3,422.8	3,012.6	2,353.5
Cost of Goods Sold	3,749.2	3,287.6	2,442.0	2,325.5
Revenue Less Expense	-163.8	135.2	570.7	28.3
Capital Surcharge Reserv	ation 5.2	60.8	29.6	28.3
Other Adjustments	-2.9	0	148.0	0
Net Operating Result	-171.9	74.4	689.0	0
Accumulated Opaerating	Result:			
Begin Year	-591.5	-763.4	-689.0	0
End Year	-763.4	-689.0	0	0
New Customer Orders	3,145.9	3,083.0	2,702.9	2,086.0

Unavoidable operational losses at closing shipyards and the impact of the overall DoD force structure decline have generated a large negative Accumulated Operating Result (AOR). A policy change in 1994 precludes the portion of these losses associated with under-applied overhead at the closing yards from being applied to BRAC funded effort. These losses are funded by a passthrough of \$433.8 million in FY 1996 from the Operations and Maintenance, Navy appropriation, and is reflected in the FY 1996 revenue estimate. Direct funding of these losses is more appropriate than recovery from customers through DBOF rates. The FY 1996 estimate also reflects accommodation of \$148.0 million of prior year losses by transfer of cash anticipated to be generated in the supply business area.

### **CAPITAL BUDGET:**

		(\$ m	illions) 🗼 💮	
E	<u>Y 1994</u>	FY 1995	FY 1996	FY 1997
FY 1995 President's Budget	63.3	52.0		
Current Request	63.3	33.1	17.2	51.0

The FY 1995 program reflects Congressional reductions and the transfer of \$6.3 million from the JLSC (Joint Logistics Systems Center) DBOF capital budget for purchase of ADP equipment to support the Depot Maintenance Standard System (DMSS) being developed by JLSC. The FY 1995 program continues to include funding to procure Radiological Controls Computer System Hardware (\$1.5 million), the Honeywell Conversion (\$11.5 million). Operating cost savings anticipated in the budget are partially dependent on these investments. The capital investment estimates for FY 1996 and FY 1997 provide for equipment replacement and minor construction requirements at the five naval shipyards projected to continue operating beyond the budget years.

### SUMMARY OF WORKLOAD INDICATORS:

	FY 1994	FY 1995	FY 1996	FY 1997
CV SLEP/MTS/CONV	-	-	-	-
ROH/COH/RF	5	5	7	7
DMP	-	1	-	-
OTHER STARTS: (SRA	•			
ERP,IA, PMA, PSA, etc		<u>49</u>	<u>41</u>	_48
TOTAL	42	55	48	55
PERFORMANCE INDIC	ATORS:	TT 1005	FW 1006	EV 1007
Net Operating Result - \$m	illions	<u>FY 1995</u> 74.4	<u>FY 1996</u> 107.2	<u>FY 1997</u> 0
Schedule - Complete (x)%	on time	TBD	TBD	TBD
Quality - Less than (x)%	lefects	TBD	TBD	TBD

### NAVAL SHIPYARDS REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	3,585.3	3,422.8	2,578.8	2,353.9
Operations	3,482.6	<b>3,304.</b> 6	2,490.1	2,265.2
Capital Surcharge	5.2	60.8	29.6	28.3
Depreciation except Maj Const	44.6	57.4	<b>5</b> 9.1	60.4
Major Construction Depreciation	53.0	0.0	<b>0</b> .0	0.0
Other Income			433.8	
Refunds/Discounts (-)				
Total Income	3,585.3	<b>3,422.8</b> ,	3,012.6	2,353.9
Expenses:				
Cost of Materiel Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	80.5	69.1	25.5	25.5
Salaries and Wages:				
Military Personnel	23.0	7.4	14.6	14.8
Civilian Personnel	2,386.8	2,057.9	1,577.7	1,495.1
Materials, Supplies and				
Parts used in Operations	<b>320.</b> 8	341.5	255.7	254.2
Facility Repair Charge	97.7	81.6	<b>5</b> 3.6	51.6
Depreciation - Capital	97.6	57.4	<b>5</b> 9.1	60.4
Contracted Engineering Services	18.3	10.1	6.5	6.5
Lease Costs	16.6	11.3	9.1	8.8
Purchased Utilities	120.3	<b>8</b> 9.3	44.4	46.9
Purchased Communications	16.1	17.1	13.5	13.6
Equipment Maintenance	23.2	23.0	1 <b>4.</b> 4	14.8
Fuel	12.1	6.8	4.0	4.1
Other Expenses	536.1	<b>515.</b> 0	363.9	329.2
Total Expenses	3,749.2	3,287.6	2,442.0	2,325.5
Operating Result	(163.8)	135.2	570.7	28.3
Less Capital Surchg Reservation	5.2	60.8	29.6	28.3
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(2.9)		148.0	
Net Operating Result	(171.9)	74.4	689.0	0.0
Prior Year AOR	(591.5)	(763.4)	(689.0)	(0.0)
Accumulated Operating Result	(763.4)	(689.0)	(0.0)	0.0

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY NAVAL SHIPYARDS SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 3,258.6	FY 1995 2,969.4	FY 1996 2,891.5	FY 1997 2,086.8
a. Orders from DoD Components	3,044.7	2,774.6	2,732.8	1,933.2
Department of the Navy Operations and Maintenance, Navy	2,913.5 1,975.5	2,410.2 1,744.9	2,725.4 2,202.8	1,925.7 1,462.3
Operations and Maintenance, Marine Corps O&M, Navy Reserve	0.4 14.0 0.1	1.2 5.0 0.0	0.1 3.7 0.0	0.1 3.4 0.0
O&M, Marine Corps Reserve Aircraft Procurement, Navy Weapons Procurement, Navy	1.7 2.4	0.0 0.0 1.5	0.0 0.0 1.4	0.0 0.0 1.4
Shipbuilding & Conversion, Navy Other Procurement, Navy Procurement, Marine Corps	(6.2) 766.7	77.7 548.4	32.5 457.3	17.5 416.5
Family Housing, Navy and Marine Corps Research, Development, Test & Eval, Navy Military Construction, Navy Other Navy Appropriations	7.9 98.6 0.9 52.2	11.3 10.0 0.9 9.2	8.6 7.8 0.6 10.5	9.1 8.6 0.7 6.1
Other Marine Corps Appropriations	(0.5)			
Department of the Army Army Operation & Maintenance Accounts Army Res, Dev, Test & Eval Accounts Army Procurement Accounts	0.8 0.7 0.1	0.3 0.0 0.0	0.2 0.0 0.0	0.2 0.0 0.0
Army Other	0.1	0.3	0.2	0.2 0.0
Department of the Air Force Air Force Operation & Maintenance Accounts Air Force Res, Dev, Test & Eval Accounts Air Force Procurement Accounts	1.9 1.8 0.0	0.1 0.0	0.0 0.0	0.0
Air Force Other	0.1	0.1	0.0	0.0
DoD Appropriated Accounts  Base Closure and Realignment  Operation & Maintenance Accounts  Res, Dev, Test & Eval Accounts	128.5 34.7 89.6 0.0	364.1 355.3 3.1 0.3	7.1 0.0 2.5 0.2	7.2 0.0 2.9 0.2
Procurement Accounts DoD Other	4.2	5.4	4.3	4.1
b. Orders from DBOF Business Areas	170.0	153.8	110.8	102.9
c. Total DoD	3,214.7	2,928.4	2,843.5	2,036.1
d. Other Orders Other Federal Agencies Trust Funds (including FMS) Non Federal Agencies	43.9 3.9 38.3 1.7	41.0 1.8 35.3 3.8	48.0 1.4 43.4 3.2	50.7 1.5 46.3 2.9
2. Carry-In Orders	1,547.2	1,220.6	577.8	456.7
3. Total Gross Orders (available funding)	4,805.9	4,190.1	3,469.3	2,543.5
4. Carry-Out Orders Change in Backlog (carry-out less carry-in)	1,220.6 (326.6)	767.3 (453.4)	456.7 (121.1)	189.6 (267.0)
5. Total Gross Sales	3,585.3	3,422.8	3,012.6	2,353.9

Department of the Navy

NAVAL SHIPYARDS

Summary of Price, Program and Other Changes (Operating Budget)

February 1995

(\$\$ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1996</b>	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	23,028	110	(15,709)	7,429	150	7,052	14,631	338	(135)	14,834
Civilian Personnel Compensation	2,386,798	21,761	(350,627)	2,057,932	32,723	(512,986)	1,577,669	47,205	(129,767)	1,495,107
Travel	56,012	593	(31,722)	24,883	267	(10,065)	15,085	159	366	15,610
Material & Supplies - Commercial	146,779	4,110	20,837	171,726	5,152	(19,115)	157,763	4,733	(12,280)	150,216
Material & Supplies - from DBOF	157,672	17,673	1,227	176,572	(14,829)	(59,812)	101,931	6,615	(479)	108,067
Other Intrafund (DBOF) Purchases	136,344	808'6	(42,794)	103,358	(5,504)	(33,655)	64,199	1,227	4,323	69,749
Transportation	24,452	685	19,058	44,195	2,210	(35,972)	10,433	313	(863)	9,883
Capital Investment Depreciation	909'16		(40,182)	57,424		1,626	59,050		1,352	60,402
Other Purchases	720,467	20,173	(96,588)	644,052	19,322	(222,178)	441,196	13,236	(52,748)	401,684
Total Operating Budget * *Includes Reimbursements	3,749,158	74,913	(536,500)	3,287,571	39,491	(885,105)	2,441,957	73,826	(190,231)	2,325,552

## DEPARTMENT OF THE NAVY NAVAL SHIPYARDS

# SUMMARY OF CHANGES IN OPERATIONS (Dollars in Millions)

	Costs.
FY 1994 Current Estimate	\$3,749.2
FY 1995 Estimate in President's Budget	\$3,278.6
Fact of life impact of FY 1994 actual experience	37.6
Pricing Adjustments:	15.2
Civilian locality pay	15.3
Productivity Initiatives and Other Efficiencies: SECNAV directed Overhead Efficiencies	(19.8)
Program Changes:	
Direct workyear changes	(23.7)
Direct material and contracts	17.2
Indirect support	39.6
Workload related changes at closing shipyards	(18.1)
Other Changes:	
Depreciation expenses - closing yards, other	(43.2)
Change in Investment threshold	5.5
Accounting services provided by DFAS	5.5
All other miscellaneous adjustments	(6.9)
FY 1995 Current Estimate	\$3,287.6
Three closing shipyards removed from DBOF	(968.0)
Pricing Adjustments:	
Annualization of FY 1995 Pay Raises	11.2
FY 1996 Pay Raise:	21.6
Civilian Personnel	0.1
Military Personnel	(20.3)
DBOF Price Changes General Purchase Inflation	27.0
Productivity Initiatives and Other Efficiencies:	(10.0)
SECNAV directed Overhead Efficiencies	(19.8)
Other productivity initiatives	(4.8)
Program Changes:	
Direct workload	45.3

Direct material and direct contract costs	32.2
Other Changes	
Depreciation expense	1.6
Direct labor - first line supervision	(80.1)
Indirect labor - first line supervision	80.1
Additional reimbursement to DFAS for financial services	1.8
Corrected miltary personnel salary cost reimbursement	7.1
Increased FECA cost	4.1
All other	15.5
FY 1996 Estimate	\$2,442.0
Pricing Adjustments:	
Annualization of FY 1996 Pay Raises	17.6
FY 1997 Pay Raise:	
Civilian Personnel	29.7
Military Personnel	0.3
DBOF Price Changes	7.8
General Purchase Inflation	18.4
Productivity Initiatives and Other Efficiencies	(2.5)
Program Changes:	
Direct workyears	(50.8)
Direct material and direct contract costs	(18.0)
Overhead workyears	(14.2)
Other overhead costrs	(17.8)
Other Changes	
Depreciation expense	1.4
Personnel separation costs (SIP/VERA/PCS)	(12.4)
Shipyard internal accounting support	(1.1)
Reimburse DFAS for financial services	(1.0)
All other	(73.7)
FY 1997 Estimate	\$2,325.5

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL SHIPYARDS

			Peacetim	e
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	295.1	0.0	295.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	334.3	0.0	334.3	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	318.7	0.0	318.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	310.7	0.0	310.7	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	77.7	0.0	77.7	0.0

# DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL SHIPYARDS

			Peacetim	ne
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	310.7	0.0	310.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	100.8	0.0	100.8	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	255.4	0.0	255.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	156.1	0.0	156.1	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	39.0	0.0	39.0	0.0

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL SHIPYARDS

			Peacetim	ıe
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	156.1	0.0	156.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	241.8	0.0	241.8	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	259.7	0.0	259.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	138.2	0.0	138.2	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	34.6	0.0	34.6	0.0

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL SHIPYARDS

			Peacetin	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	138.2	0.0	138.2	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	237.2	0.0	237.2	0.0
Negotiated Purchase from Customers	<b>0</b> .0	0.0	0.0	0.0
Gross Sales	251.7	0.0	251.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT	0.0	0.0	0.0	0.0
REIMBURSEMENT + or (-)				
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	123.8	0.0	123.8	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	30.9	0.0	30.9	0.0

# BUSINESS AREA CAPITAL BUDGET SUMMARY Department of the Navy Depot Maintenance/Naval Shipyards FY 96/97 President's Budget

(\$ in Millions)

1. Equipment Non ADP Equipment (>\$500K) <replacement> 60 TON PORTAL CRANE HAZ MIN/PAINTING EQUIPMENT REFILING LADLE SYSTEM CRANES, BRIDGE CRANES, BRIDGE CRANES, MOBILE, TRUCK CRANE CONTRACT N62472-87-C-1450 SETTLEMENT HORIZ BORING MILL, REMANUFACTURE PIPE BENDER, 6", SEMI-AUTOMATIC COLLATTERAL EQUIP. FOR MCON PROJ. P-622  <new mission=""> 7500 KVA PORTABLE TRANSFORMER RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT Subtotal Non ADP Equipment (FY94-\$25K-\$500K; FY95/97:&gt;\$50KC)  Subtotal Non ADP Equipment (FY94-\$25K; FY95/97:&gt;\$50K)</new></replacement>	!			FY 1994		FY 1995		FY 1996		FY 1997	
1. Equipment Non ADP Equipment (>\$500K) <replacement> 60 TON PORITAL CRANE HAZ MIN/PAINTIC BADIE HAZ MIN/PAINTIC BOUIPMENT CRANES, MADELE, TRUCK CRANES, MADELE, TRUCK CRANES, MADELE, TRUCK CRANES, MADELE, TRUCK CRANES, MADELE, TRUCK CRANES, MALLA, REMANUPACTURE PIPE BENDER, 6', SENI-AUTOMATIC COLLATTERAL EQUIP. FOR MCON PROJ. P-622  <new mission=""> 7500 KVA PORTABLE TRANSFORMER RADIOLOGICAL WORK BUCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT Subtotal Non ADP Equipment (FY94&gt;\$25K&lt;500K;FY95/97:&gt;\$50K&lt;\$500K)  Subtotal Non ADP Equipment (FY94&gt;\$25K; FY95/97:&gt;\$50K</new></replacement>	LINE #	Item Description	Quant	Total Cost	Quant		Quant	Total Cost	Quent	Total Cost	1
### 60 TON PORTAL CRANE HAZ MIN/PAINTING EQUIPMENT REFINING LADLE SYSTEM CRANES, HOSTICE CRANE		quipment									1
MENT  T  VAR  1 6.0 1 5.0 1 6.3  1 0.9  T  VAR  3.2  1 3.6  VAR  3.2  T  VAR  3.0.4  VAR  13.7  11.8  6.3  VAR  VAR  44.1  VAR  8.0		<replacement></replacement>									
CRANES, BRIDGE CRANES, MOBILE, TRUCK CRANES, MOBILE, TRUCK CRANES CONTRACT N62472-87-C-1450 SETTLEMENT HORIZ BORING MILL, REMALAUTOMATIC COLLATTERAL EQUIP. FOR MCON PROJ. P-622 <new mission="">  7500 KVA PORTABLE TRANSFORMER  RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT  Subtotal Equipment (&gt;\$500K)  Subtotal Rquipment (FY94&gt;\$25K&lt;500K;FY95/97:&gt;\$50K&lt;\$50K)  Subtotal Non ADP Equipment (FY94&gt;\$25K; FY95/97:&gt;\$50K&lt;</new>	002	60 TON PORTAL CRANE HAZ MIN/PAINTING EQUIPMENT REFINING LADLE SYSTEM	ннн	2.50	н	5.0	н	6.3	~ त	12.5	
HORIZ BORING MILL, REMANUFACTURE PIPE BENDER, 6", SEMI-AUTOMATIC COLLATTERAL EQUIP. FOR MCON PROJ. P-622 <new mission=""> 7500 KVA PORTABLE TRANSFORMER RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT Subtotal Equipment (&gt;\$500K)  Subtotal Non ADP Equipment (FY94&gt;\$25K&lt;500K; FY95/97:&gt;\$50K&lt;\$50K)  Subtotal Non ADP Equipment (FY94&gt;\$25K&lt;500K; FY95/97:&gt;\$50K)  Subtotal Non ADP Equipment (FY94&gt;\$25K&lt;500K; FY95/97:&gt;\$50K)  Subtotal Non ADP Equipment (FY94&gt;\$25K&lt;500K; FY95/97:&gt;\$50K)</new>	04	CRANES, BRIDGE CRANES, MOBILE, TRUCK CRANE CONTRACT M62472_87_C_1450 SETTI EMENT	I		•	v c			വ	1.4	
COLLATTERAL EQUIP. FOR MCON PROJ. P-622 <new mission="">  7500 KVA PORTABLE TRANSFORMER  RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT  Subtotal Bquipment (&gt;\$500K)  Subtotal Non ADP Equipment  (FY94&gt;\$25K&lt;500K; FY95/97:&gt;\$50K&lt;\$500K)  Subtotal Non ADP Equipment  (FY94&gt;\$25K; FY95/97:&gt;\$50K&lt;\$50K)  Subtotal Non ADP Equipment  (FY94&gt;\$25K; FY95/97:&gt;\$50K)  Subtotal Non ADP Equipment  (FY94&gt;\$25K; FY95/97:&gt;\$50K)</new>	00	HORIZ BORING MILL, REMANUFACTURE PIPE BENDER, 6", SEMI-AUTOMATIC			1	o • • • • • • • • • • • • • • • • • • •			77	3.6	
7500 KVA PORTABLE TRANSFORMER RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT Subtotal Equipment (>\$500K)  Subtotal Non ADP Equipment (FY94>\$25K<500K; FY95/97:>\$50K<\$50K)  Subtotal Non ADP Equipment (FY94>\$25K<500K; FY95/97:>\$50K<\$50K)  Subtotal Non ADP Equipment (FY94>\$25K; FY95/97>\$50K)	5 5				A A A	3.2					
Subtotal Equipment (>\$500K)  Subtotal Non ADP Equipment (FY94>\$25K<500K;FY95/97:>\$50K<\$500K)  Subtotal Non ADP Equipment Subtotal Non ADP Equipment (FY94>\$25K; FY95/97>\$50K)  Subtotal Non ADP Equipment (FY94>\$25K; FY95/97>\$50K)	110	7500 KVA PORTABLE TRANSFORMER RADIOLOGICAL WORK ENCLOSURES ONBOARD DISCHARGE TANKS BLAST EQUIPMENT	че	0.0 3.5					н	0.8	
Subtotal Non ADP Equipment (FY94>\$25K<500K;FY95/97:>\$50K<\$500K)  Subtotal Non ADP Equipment (FY94>\$25K; FY95/97>\$50K)		Subtotal Equipment (>\$500K)		13.7		11.8		6.3		24.3	
VAR 44.1 VAR 13.0 VAR 8.0	13	Subtotal Non ADP Equipment (FY94>\$25K<500K;FY95/97:>\$50K<\$500K)	VAR	30.4	VAR			1.8	VAR	11.3	
		Subtotal Non ADP Equipment (FY94>\$25K; FY95/97>\$50K)	VAR	44.1	VAR		VAR	8.0	VAR	35.6	<del> </del>

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# BUSINESS AREA CAPITAL BUDGET SUMMARY Department of the Navy Depot Maintenance/Naval Shipyards FY 96/97 President's Budget

(\$ In Millions)

		L	FY 1994		FY 1995		FY 1996		FY 1997
# E	Item Description	Quant	Total Cost	Quant	Total Cost	Quent	Total	Quant	Total
	2. ADP Equipment and Telecomm ADP Equipment (>\$100K)								
0014	INFORMATION TECHNOLOGY (IT) CONSOLIDAT - DMRD 924 - RADIOLOGICAL CONTROLS CONDITIED SYSTEM	VAR	7.7	VAR	11.5	10			
0016				4	1.5			•	
0017				VAR	6.3		8.2	- <del></del>	7.2
	Subtotal ADP Equipment (>\$100K)		7.7		19.3		8.2		7.4
0018	Subtotal ADP Equipment (FY94:>\$25K<\$100K; FY95/97:>\$50K<\$100K)		0.0	VAR	0.0	VAR	0.0	0.0 VAR	1.0
	Total ADP Equipment (FY94:>\$25K;FY95/97:>\$50K)	VAR	7.7	VAR	19.3	VAR	8.2	VAR	8.4
	3. Software Development		0.0		0.0		0.0		0.0
	(Off The Shelf Software Listed Separately)								
						····			



DBOF UC/FUND 9A

# BUSINESS AREA CAPITAL BUDGET SUMMARY Department of the Navy Depot Maintenance/Naval Shipyards FY 96/97 President's Budget

(\$ In Millions)

### Total Total Total Total August Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Quant Cost Cost Quant Cost Cost Cost Cost Cost Cost Cost Cos		}	FY 1994		FY 1995		FY 1996		FY 1997
200K<\$300K) ity/New Mission)  tion (FY 96/97>\$200K<\$300K)  tion (FY 96/97>\$50K<\$200K)  tion (FY 96/97>\$50K<\$300K)  tion (FY 96/97>\$50K<\$300K)  truction  Tru		Quant	Total Cost	Quant	Totel Cost	Quent	Totel Cost	Quant	Total Cost
1ty/New Mission)  tlon (FY 96/97>\$200K<\$300K)  tlon (FY 96/97>\$200K<\$300K)  tlon (FY 96/97>\$200K<\$300K)  tlon (FY 96/97>\$200K<\$300K)  tlon (FY 96/97>\$200K<\$300K)  truction  tru	4. Minor Construction								
tion (FY 96/97>\$200K<\$300K)  tion (FY 96/97>\$200K<\$300K)  ty/New Mission)  truction  t	Minor Construction (>\$200K<\$300K) (Replacement/Productivity/New Mission)								
Lion (FX 96/97>\$200K       VAR       11.5       VAR       11.5       VAR       11.0       VAR         /97:>\$50K<\$200K)	NAVSHIPYD Portsmouth NAVSHIPYD Norfolk NAVSHIPYD Long Beach NAVSHIPYD Puget Sound						·	нннг	0.3 0.3 0.3
/97:>\$50K<\$200K)  ity/New Mission)  Lruction  iFY95/97:>\$50K<\$300K)  Capital Purchase Program  VAR 63.3 VAR 33.1 VAR 17.2 VAR 5	Subtotal Minor Construction (FY 96/97>\$200K<\$300K)							VAR	1.4
VAR         11.5         VAR         0.8         VAR         1.0         VAR           ogram         VAR         63.3         VAR         33.1         VAR         17.2         VAR         5	<pre>Subtotal Minor Construction (FY94:&gt;\$25K&lt;\$300K;FY 95/97:&gt;\$50K&lt;\$200K) (Replacement/Productivity/New Mission)</pre>	VAR	11.5	VAR	0	VAR	1.0	VAR	5.6
VAR 63.3 VAR 33.1 VAR 17.2 VAR 51		VAR	11.5	VAR	0.8	VAR	1.0		7.0
		VAR		VAR	33.1	VAR	17.2		51.0

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	-	Α.	A. FY 96/97 President's Budget	sident's	Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards   C. 0001 60 TON PORTAL CRANES - REPLACEMENT	CRANES - REF	LACEMENT	D. Activity, Location LONG BEACH, PUGET & PORTSMOUTH AND PEAR	ty, Loca EACH, PU DUTH AND	Activity, Location LONG BEACH, PUGET SOUND, PORTSMOUTH AND PEARL	
		FY 1996	90		FY 1997	7.
Element of Cost	aty	Unit	Total	ûty	Unit	Total
END ITEM	-	-	6.3	7	2	12.5
						*
Narrative Justification:						

existing portal cranes were procured in the 1940's. They were overhauled regularly but are aging. Critical frame members have exhibited stress cracking and reliability is becoming an increasing problem. The manufacturers of many of these cranes are no longer in business. Further overhauls are not feasible in light of structural fatigue problems. Many of the portal cranes planned for replacement have configuration problems: e.g. hook height or boom reach are limited and are unable to adequately service the current ships under repair at the shipyards. Many cannot be relied upon for critical lifts and do not meet OSHA standards for certain operations. Unit costs vary due to track configuration, installation and transportation costs at each naval shipyard. These are essential projects required to the support the shipyard mission. The shipyard portal cranes provide the waterfront lifting capability essential to the repair and overhaul of ships. The majority of the

(\$ In Millions)	Portsmouth	FY 1997	oTHS:    1.   24.9   Unit   1.   24.5   Unit
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B. Department of the Navy/Depot Maintenance/Naval Shipyards   C. 0003 BRIDGE CRANES - REPLACEMENT	- REPLACEMEN		D. Activity, Location	ty, Local		
					tion	
			Ports	mouth and	Portsmouth and Puget Sound	pun
#		FY 1996	yo.		FY 1997	<b>~</b>
clement of Lost	0ty	Unit	Total	aty	Unit	Total
Total				3	VAR	1.4
5 TON CAPACITY				-	0.5	0.5
60 TON CAPACITY				2	0.5	0.9
	<u> </u>		-			

Narrative Justification:

These projects will replace bridge cranes, manufactured during 1942, 1920, 1943, 1919 and 1941 which are continuously in need of repair and are difficult to maintain. These cranes support various ship repair and overhaul operations. Non-availability of replacement parts and increasing inspection deficiencies are causing major delays in crane service in addition to concerns for worker and equipment safety. Replacement cranes will eliminate those problems inherent with operating excessively old equipment and will insure reliable and safe crane service into the next century. Specific justifications follow: 5 ton bridge crane: This crane supports the saw mill which is essential to the manufacturing of docking cradles and keel blocks necessary to drydock surface ships and submarines undergoing maintenance, overhaul and modernization.
This is an essential project required to support the shipyard mission.

submarines undergoing maintenance, overhaul and modernization. This equipment has been taken out of service and lifts are currently being performed by rental cranes. This is an essential project to support the shipyard mission. Savings on rental fees to be realized through this 60 ton bridge cranes: These cranes support propeller shop repair work which is essential to the repair and overhaul of surface ships and purchase are estimated at \$120,000 per year.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	JUSTIFICATION		A. F	FY 96/97 Presidents's Budget	sidents'	s Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0004 CRANES, MOBILE, TRUCK - REPLACEMENT	- REPL	ACEMENT	D. Activity, Location	ty, Loca	tion	
				LONG	BEACH AN	LONG BEACH AND PUGET SOUND	QND
		•	FY 1996	9		FY 1997	7
Element of Cost	3	aty	Unit	Total	aty	Unit	Total
Total					2	VAR	4.3
50 TON CAPACITY					•	2.	ī.
40 TON CAPACITY					<b>,</b>	2.	πċ
110 TON CAPACITY					-	1.4	1.4
150 TON CAPACITY					-	1.6	1.6
100 TON CAPACITY						ĸ,	ĸ.
Narrative Justification:							

The shipyard truck cranes provide general purpose waterfront (at locations which cannot be serviced by portal or floating cranes) and industrial outdoor and infrequent indoor lifting capability essential to the repair and overhaul of ships. The existing truck cranes were procured in the 1960's and 1970's. They were overhauled regularly but are aging. Critical components have exhibited stress and reliability is becoming an increasing problem. Further overhauls are not feasible in light of repeated problems. Specific justifications follow:

This is an essential project required to support the shipyard mission. 40 ton crane:

This is an essential project required to support the shipyard mission. 50 ton crane:

<u>100 ton crane:</u> This equipment (four cranes) has been surveyed and lifts are currently being performed by a rental crane. This is an essential project required to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at \$156,000 per year.

This equipment has been surveyed and lifts are currently being performed by a rental crane. This is an essential project required to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at \$484,632 per year. 110 ton crane:

This is an essential project 150 ton crane: This equipment has been surveyed and lifts are currently being performed by a rental crane. This is an essential projerequired to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at \$574,632 per year.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	STIFICATION		Ą.	A. FY 96/97 President's Budget	sident's	. Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards C.	C. 0005 HORIZONTAL BORING MILLS, REMANUFACTURE - REPLACEMENT	LS,		D. Activity, Location Portsmouth, Norfoll	Activity, Location Portsmouth, Norfolk	ition orfolk	
		•	FY 1996	9		FY 1997	2.
Element of Cost		ûty	Unit	Total	aty	U it	Total
Total					2	3.6	3.6
Horiz. Boring Mill, 5"					<del>-</del>	9.	9.
Horiz. Boring Mill, 7"					-	3.0	3.0
Narrative Justification:							

5 inch horizontal boring mill: This project will restore this numerically controlled (NC) machine's original mechanical design specifications and upgrade it's NC capabilities consistent with modern machine tool technology, and correct environmental deficiencies. This machine is currently operated manually and at 50 percent of it's rated speed limiting the complexity and capacity at which work can be accomplished. The cooling system for the hydraulics plant uses Freon which is environmentally unsafe and will be replaced by this project with a suitable substitute. Maintenance required by this machine is increasing and repair parts for the NC controller are unavailable. This is an essential project required to support the shipyard mission.

covers, and weapons handling devices. Line boring is required to ensure that large machinery components are correctly aligned after overhaul for will reduce operator error and save time through reduced tooling, material handling, rework and setup. This machine has unique capabilities and has a large capacity rotary table which, when used, will ensure proper alignment of many shipboard items such as large pumps and turbines, hatch is required to repair and refurbish shipboard components such as weapons and aircraft elevator platforms, doors, rails, etc. The machine also 7 inch horizontal boring mill: This project will refurbish and retrofit the existing machine with a Computer Numerical Control unit with Manual Data Input (CNC-MDI). The existing controls are obsolete and can no longer be maintained. After the upgrade, the CNC machine will be travel. The stability and rigidity of a rebuilt machine will enable a high quality surface finish where specified. The CNC-MDI capabilities used at a greater speed and capacity and will be capable of maintaining dimensional accuracy to plus or minus 0.0005 inches in all axes of reinstallation aboard ship.

This equipment is considered a mission essential requirement.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	IFICATION		A. F	FY 96/97 President's Budget	sident's	s Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0	C. 0006 PIPE BENDER, 6", SEMI-AUTOMATIC -	-AUTOMA	TIC -	D. Activity, Location NORFOLK	ty, Loca	ation	
			FY 1996	9		FY 1997	
Element of Cost		ûty	Unit	Total	aty	Unit	Total
END ITEM					-	7.	7.
			-				
Narrative Justification:			1				

required in an environment which demands ever increasing quality and precision to accomplish accurate shipboard fit. A 6" Semi-Automatic Bender must be acquired in order to accomplish the demands of work currently assigned to this shippard and the work planned in the future. The work mix assigned to this shippard over the next six years will require their pipe shop to bend a greater quantity of large diameter pipe (4"-6" NPS) than in the past. Future large diameter pipe bending will include: (1) Fuel oil piping (6" NPS) on LPH and LPD class ships, (2) Seawater piping (4"-6" NPS) on LHA class ships and (3) Firemain piping on all classes on non-nuclear surface craft. In addition, the acquisition of this 6056-454). This project will replace an existing 6" pipe bender which is nearing the end of its service life and is becoming unable to meet tolerances

This is an essential project required to support the shipyard mission.

B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0007 ONBOARD DISCHARGE TANKS, BLASTING D. Activity, Location EQUIPMENT NORFOLK
FY 1996 FY 1997
aty Unit Total aty Unit Total
Inrative Justification:  During a newly required Incremental Maintenance Plan (IMP), this shipyard must support the refurbishing of contaminated Discharge Storage Tanks (DSIs) on CVNs in accordance with new technical requirements. In order to support this work, an upgrade of the shipyard blasting equipment is required to complete this critical work path as assigned. This is an essential project required to support the shipyard mission.
red Incremental Maintenance Plan (IMP), this shipyard must support the refurbishing of contaminated Discharge saccordance with new technical requirements. In order to support this work, an upgrade of the shipyard blastir complete this critical work path as assigned. project required to support the shipyard mission.

	1				
			Total	11.3	snop
Budget ,	ltion PEARL	FY 1997	Unit	VAR	erage and ain hazard
sident's	Activity, Location PTSMH, NORVA, LBEACH, PUGET, PEA		Qty	VAR	or continuitiems.
FY 96/97 President's Budget	D. Activi PTSMH, LBEACH	9	Total	1.8	s and to ret t to reduce and other
<u> </u>	10K;	FY 1996	Unit	VAR	regulation; equipment
	\$25K<\$50		aty	VAR	datory
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0008 EquipMENT (FY 94: >\$25K<\$500K; FY 95/97: >\$50K<\$500K)		Element of Cost	END ITEM	Narrative Justification:  These items are required for naval shippards to accomplish assigned work, to meet mandatory regulations and to replace overage and unreliable equipment. Included are refueling support equipment; mandatory CESE/MHE replacements; equipment to reduce or contain hazardous materials and wastes; equipment to improve or maintain air quality in the work place; taboratory equipment and other items.  These are essential projects required to the support the shippard mission.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION		Α. F	FY 96/97 President's Budget	sident's	. Budget	
(SUOLINE UT 4)			PORTSMOUTH		,	
B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0009 EDMICS UPGRADE			D. Activity, Location	ty, Loca	tion	
			PORTSMOUTH	оптн		
		FY 1996	9		FY 1997	2
Element of Cost	aty	Unit	Total	ûty	Unit	Total
END ITEM				-	0.2	0.2
		-				
Narrative Justification:  This project supports the upgrade of the Joint Engineering Data Management Information and Control System (JEDMICS). JEDMICS is a DOD  Computer-aided Acquisition and Logistics Support (CALS) initiative. The JEDMICS provides a standard digital platform for storing, indexing, reproducing and distributing engineering drawings and technical data. The productivity enhancements from JEDMICS implementation have been reproducing and distributing engineering drawings and technical data. This upgrade is a planned replacement for obsolete workstations.	and Co a stan nhancem placeme	ntrol Sys dard digi ents from nt for ob	tem (JEDMIC tal platfor JEDMICS im solete work	S). JEE m for st plemente stations	JEDMICS is a DOD storing, indexii entation have been ions.	DOD lexing, been

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)		A. F	A. FY 96/97 President's Budget	sident's	s Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0010 DEPOT N (DMSS) 10S H	C. 0010 DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) IOS HARDWARE (JLSC)	D SYSTEM	D. Activity, Location Long Beach, Norfoll Portsmouth, Puget	ty, Loce each, No outh, Pu	ation orfolk, Peg uget Sound	Activity, Location Long Beach, Norfolk, Pearl Harbor, Portsmouth, Puget Sound
		FY 1996	)6		FY 1997	7
Element of Cost	aty	Unit	Total	aty	Únit	Total
HARDWARE:						
MID TIER User Level	VAR		0.9	VAR		0.7
TOTAL			8.2			7.2
Narrative Justification:						

These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics System Center to the Navy NSY maintenance depots. During the recent budget review, the responsibility for acquisition of hardware was transferred from JLSC to the Military Services.

Military Services' related need for a more capable information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AIS development efforts and commercially available systems. These efforts The Depot Maintenance Standard System (DMSS) was created in response to the DOD initiative to standardize logistics systems across DOD and the have sustained the need to modernize the platforms and hardware represented by this submittal.

DMSS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through process improvements delivered by DMSS applications to support Depot Maintenance improved Functional Baseline (IFB). These improvements include:

Reduced inventories through improved planning and tracking Reduced labor through better resource and work planning Reduced overhead through automation and the elimination of non-valu

Shorter cycle times through better planning and management information to control operations Reduced overhead through automation and the elimination of non-value added activity Improved schedule performance through more complete asset visibility Once implementation is complete and legacy applications are reduced or eliminated, ADP costs will come down markedly!

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Page 2 of 2

FY 96/97 President's Budget	D. Activity, Location Long Beach, Norfolk, Pearl Harbor, Portsmouth, Puget Sound	o the depot/shipyard business process and infrastructure will not be achieved. Implementing litical contribution toward improving mission readiness in a downsizing environment. As the DOD workforce continue and the number of depot/shipyards are reduced, efficient and effective organic rtance to DOD in sustaining weapons systems combat readiness. In order to meet this demand, the business processes and the associated information infrastructure (hardware).			
Α.	EM	ture wi ss in a s are r sadines			
	ARD SYS	astruc eadine iipyard mbat re			
IAL PURCHASES JUSTIFICATION In Millions)	C. 0010 DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) 10S HARDWARE (JLSC)	the depot/shipyard business process and infrastructure will not be achieved. tical contribution toward improving mission readiness in a downsizing enviror workforce continue and the number of depot/shipyards are reduced, efficient trance to DOD in sustaining weapons systems combat readiness. In order to mes business processes and the associated information infrastructure (hardware).			
OCTINESS AREA CAPTIAL FORCHASES (\$ In Millions)	B. Department of the Navy/Depot Maintenance/Naval Shipyards	Narrative Justification (continuation):  Without this investment, needed improvements to the depot/shipyard business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DOD weapon systems continue to age, reductions to the workforce continue and the number of depot/shipyards are reduced, efficient and effective organirepair capability is of increasingly growing importance to DOD in sustaining weapons systems combat readiness. In order to meet this demand, the depot/shipyard community needs to strengthen its' business processes and the associated information infrastructure (hardware).			
	B. Department of th	Narrative Justificat Without this inveenhanced repair and weapon systems contirepair capability is depot/shipyard communications			

Element of the Navy/Depot Maintenance/Maval Shippards C. 0011 ADP Equipment (2450c4100X) PORTSWOUTH, LOGGET SOUND, LONG ERCH, LONG E	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)		Α.	FY 96/97 President's Budget	sident's	· Budget	
aty Unit Total WAR WAR Projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory ent to support emergent work assignments.	<b></b>	JUIPMENT (>\$50K<\$100K	C		ty, Loca OUTH, NO SOUND, P	Ition RFOLK, LON EARL HARBO	G BEACH,
quired for naval shipyards to accomplish assigned work, to meet mandatory regulations and to raplace obsolete and Projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory ent to support emergent work assignments.			FY 195	90		FY 199	
quired for naval shipyards to accomplish assigned work, to meet mandatory regulations and to replace obsolete and Projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory empty to support emergent work assignments.	Element of Cost	aty	Unit	Total	aty	Unit	Total
Harrative Justification:  These items are required for naval shipyards to accomplish assigned work, to meet mandatory regulations and to replace obsolete and unreliable equipment. Projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory replacement of equipment to support emergent work assignments.	END ITEM				VAR	VAR	1.0
Tress Tells and to replace obsolete and unreliable equipment, and mandatory regulations and to replace obsolete and unreliable equipment, projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory replacement of equipment to support emergent work assignments.	arrative Justification:						
	inese items are required for mayal shipyards to accomplish assigned with the category include "fact of life" replacement of equipment to support emergent work assignments.	k, to meet mandatory placements for broke	regulation	ns and to rej iable equipm⊮	place ob ent, and	solete and Imandatory	

(\$ In Millions)			FY 96/97 President's Budget	ident's	Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards   C. 0012 MINOR <\$300	C. 0012 MINDR CONSTRUCTION (FY 96/97: >\$200K <\$300K) NAVSHIPYD PORTSMOUTH	7: >\$200K	D. Activity, Location PORTSMOUTH	:y, Loca	tion	
		FY 1996			FY 1997	
Element of Cost	aty	Unit	Total	ûty	Unit	Total
END ITEM				-	0.3	0.3
Narrative Justification:						
East/West Gross Connect for Steam Distribution - \$250K						
This construction will provide a new connection between the existing East-side and West-side steam distribution systems. Each system is presently fed independently from the existing power generating plant. There is presently no interconnection between these two separate distribution systems. Routine maintenance and emergency repairs to certain parts of either system results in complete shut down of half the service segments of the proposed construction will provide a cross connection outside the power plant which will give the capability to service segments of the dound distribution the capability to	st-side and West-side e is presently no into parts of either syst nnection outside the	steam dis erconnecti em results cower plan	tribution sy on between 1 in complete t which will	/stems. these tw s shut d l give t	Each syst to separate down of hal the capabil	em is f the ity to

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Millions)	FICATION		A. FY	A. FY 96/97 President's Budget	sident's	Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards C. OC	C. 0013 MINOR CONSTRUCTION (FY 96/97: >\$200K <\$300K) NAVSHIPYD NORFOLK	Y 96/97 FOLK	7: >\$200K	D. Activity, Location NORFOLK	y, Loca	tion	
			FY 1996			FY 1997	
Element of Cost		aty	Unit	Total	۵ty	Unit	Total
END ITEM	, , , , , , , , , , , , , , , , , , ,					0.2	0.2
Nerrative Instification:							

Narrative Justification:

Enclose Hi-Bay Area, Bldg 261 - \$215K

This project will enclose the existing South and West walls of the ship repair shop, Building 261, presently exposed to climatic conditions. The work will encompass enclosing the area with aluminum siding and provide three bay doors. The work will also include the removal of lead paint and painting the vertical steel columns. This work will provide additional enclosed storage area need for ship repair shop services for storage of related associated equipment. The work is the most cost effective method based on cost and siting of the facility.

Construct Facility to House Equipment at Antenna Test Range - \$200K

This project proposes to build a 615 SF building at the existing antenna test range at St Julian's Creek Annex. The facility will be complete with all utilities and hook-ups required to install and operate the equipment presently located in Building 1455. Building 1455 can no longer be used as a result of its close proximity to a recently installed electrical substation. Due to potential personnel injury or damage to the substation due to induced electrical current arcing, the equipment cannot be used in its existing location. The alternative, to eliminate existing electromagnetic interference around Building 1455, would be more expensive, and would not eliminate the potential hazards to personnel in a highly congested production area.

B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0014 MINOR CONSTRUCTION (FY 96/97: >\$200K   D. Activity, Location <	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	STIFICATION		A. F	A. FY 96/97 President's Budget	sident's	Budget	
FY 1996       FY 1997         aty       Unit       Total       Unit         1       0.3		0014 MINOR CONSTRUCTION (F	Y 96/97	. >\$200K	D. Activit	ty, Loca	tion	
aty Unit Total aty Unit Total 0.3				FY 199	9		FY 199	
	Element of Cost		Q ty	Unit	Total	aty	Unit	Total
	END ITEM					-	0.3	0.3
Narrative Justification:	rrative Justification:							

Dewater Pumps Alteration - \$291K

Project will alter existing Drydock I dewatering pumps. The existing pumps and motors have a capacity of 85 hp. The work proposed by this project will increase the pumping capacity by installing 150 hp rated pumps and motors. This effort will reduce dewatering time and improve the dewatering to any result in standardization of the submersible pumps and controllers.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	JUSTIFICATION		A. F	A. FY 96/97 President's Budget	sident's	Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0015 MINOR CONSTRUCTION (FY 96/97: >\$200K	(FY 96/9) JGET SOU!	7: >\$200K	D. Activity, Location PUGET SOUND	ty, Loca SOUND	ition	
			FY 1996	9		FY 1997	2
Element of Cost		ûty	Unit	Total	۵ty	Unit	Total
END ITEM					M	VAR	0.7
				-			

Narrative Justification:

Install Hazardous Waste Lines To Bldg 871 - \$275K

This project replaces the existing hazardous waste transfer line between two existing buildings. A waste stream from Bldg 856 called "fish glue" is being collected in portable tanks and transported to Bldg 871 several times a week for processing. Since the waste contains chrome, it is not legal to mix with the waste being transported to the existing transfer pipe.

Provide Vehicle Washdown Area - \$202K

Project will construct a wash down facility for the processing of soiled refuse trucks and other large vehicles in an environmentally safe manner prior to commencing recurring and annual vehicle maintenance. The vehicle wash rack will also reduce personnel injuries to vehicle operators and mechanics working around soiled/muddy equipment.

Training Facility - \$200K

Project will construct a training facility adjacent to the existing apprentice school. Emphasis has been placed on increased technical training for shipyard employees. The demand for training has increased the necessity for additional educational facilities for hands ontraining. Although staggering of courses has been implemented to minimize the demand on the existing facility an additional facility is required to accommodate the training aides and equipment used in employee training.

B. Department of the Navy/Depot Maintenance/Naval Shipyards C. 0016 MINOR CONSTRUCTION PROJECTS  (FY 94/95; >\$25,000-\$300,000; FY 95/97; PEARL, PUGET  *\$50K-\$200K)  *\$50K-\$200K)  FY 1996  FY 1	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)		A.	A. FY 96/97 President's Budget	sident's	. Budget	
FY 1996  Qty Unit Total Qty Unit Total  VAR VAR VAR VAR VAR	ပံ	PROJECTS ),000; FY (She	95/97: set 1 of 3)		ty, Loca NORVA, PUGET	ıtion LBEACH	
aty Unit Total Oty Unit Total  VAR VAR 1.0 VAR VAR			FY 1996	5		FY 195	9
VAR VAR VAR	Element of Cost	aty		Total	ûty	Unit	Total
	END ITEM	VAR	VAR	1.0		VAR	5.6

Narrative Justification:

The erection, installation and assembly of new mission essential facilities as well as the extension, alteration, conversion, replacement and relocation of existing facilities is mandatory for the Navy to reduce operating costs and meet readiness requirements. Naval shipyards must maintain facilities that average 50 years and in some instances are over 200 years old. Some of these facilities are structurally unsound and contain materials that are now considered harmful. In some cases less efficient temporary facilities are used in order to meet mission requirements.

New facilities are required to meet new mission changes, to correct environmental concerns and to reduce operating costs. Facilities on the West coast that do not meet seismic requirements need to be renovated/replaced. Some facilities on the East and West coasts contain asbestos hazards which must be abated. Additional lighting is required to provide sufficient illumination to waterfront and perimeter areas to prevent unauthorized infiltration and reduce personal injury. Finally, the construction of facilities is required to comply with environmental laws and regulations. The projects associated with this line item is as follows:

### FY 1996:

### Norfolk Naval Shipyard:

Installation of Additional Drain Pump, Dry Dock #8 - \$100K Relocate Code 135 "Paint Test Facility" - \$186K Convert Battery Charging Facility, Building 260 - \$100K

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)		A. F	FY 96/97 President's Budget	sident's	s Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards (FY 94/95: >\$25,000<\$300,000; FY 95/97: \$550K<\$200K) (Sheet 2 of	PROJECTS ,000; F) (She	s 7 95/97: set 2 of 3)	0.	Activity, Location PTSMH, NORVA, LBEACH PEARL, PUGET	ation LBEACH	
		FY 1996	9.		FY 1996	90
Element of Cost	Qty	Unit	Total	ûty	Unit	Total
. END ITEM						
Narrative Justification (continuation):						
FY 1996:						
Portsmouth Naval Shipyard:						
Construct Ductbank, Electric Loadhouse, Dry Dock #3 - \$176K Alter Building #311 for Pure Water Project - \$165K						
Puget Sound Naval Shipyard:						
Enclose North Breezeway - \$182K Install Electric Services on Quay Wall - \$170K						
FY 1997:						
Norfolk Naval Shipyard:						
Repair of Building #14 - \$100K Repair of Building #31 - \$132K Antenna Test Range Enclosure - \$199K Local Minor Construction (>50K - <\$200K) - \$1.5M						

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Millions)	JUSTIFICATION		A. F.	FY 96/97 President's Budget	ident's	Budget	
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0016 MINOR CONSTRUCTION PROJECTS (FY 94/95: >\$25,000<\$300,000; FY 95/97: >\$50K<\$200K) (Sheet 3 of	ROJECTS 000; FY (Shee	ECTS ; FY 95/97: (Sheet 3 of 3)	D. Activity, Location PTSMH, NORVA, LBEACH PEARL, PUGET	y, Loca NORVA, PUGET	tion LBEACH	
			FY 1996	<u> </u>		FY 1996	90
Element of Cost		9ty	Unit	Total	aty	Unit	Total
END ITEM			,				
Narrative Justification (continuation):							
FY 1997:							
Puget Sound Naval Shipyard:							
Install New Track, West End - \$180K Upgrade Substation #13 - \$139K Various Minor Construction Design Costs - \$120K Local Minor Construction Projects and Design Costs (variuos) - \$1.96M	.) - \$1.96M						

Pearl Harbor Naval Shipyard:

Local Minor Expense Alterations and Design (various) - \$400K Local Minor Expense Construction and Design Projects (various) - \$65K

Long Beach Naval Shipyard:

Local Minor Construction and Design, Environmental, Various(>\$50K - <\$100K) - \$270K Local Minor Construction and Design, Various (>\$50K - <\$100K) - \$270K

Portsmouth Naval Shipyard:

Environmental Controls, Bldg. #16 Annex - \$135K Renovate Gate #1 Pass Office - \$150K Local Minor Construction and Design, Various (>\$50K - <\$100K) - \$250K

Page 3 of 3

## FY 1995 DBOF Capital Program Reconcilliation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Explanation for cancellation or deferral and substitution

\$1,950

\$950

# FY 1995 DBOF C, AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

\$12,500

	<u>a</u>	-		S N
NAVAL SHIPYARDS (\$ 000s)	<ol> <li>Depot Maintenance - Naval Shipyards</li> <li>a. Non-ADPE and Telec. Equipment (&gt;\$500K)</li> <li>60 TON PORTAL CRANES (Project P026-95/Project P058-95)</li> <li>b. Reduction and Cancellation</li> <li>c. Project P026-95 reduced from \$6.25M to \$5M following contract award which determined actual line item cost. Project P058-95 canceled due to Congressional reduction to DBOF capital program.</li> </ol>	<ul><li>2. Depot Maintenance - Naval Shipyards</li><li>a. Non-ADPE &amp; Telec. Equipment (&gt;\$500K) - TURN/MIL CENTER (P013-95)</li><li>b. Cancellation.</li><li>c. Replaced by Contact N62472-87-C-1450 Crane Contract Settlement.</li></ul>	<ol> <li>Depot Maintenance - Naval Shipyards</li> <li>a. Non-ADPE &amp; Telec. Equipment (&gt;\$500K) - HORIZ BORING MILL REMANUFACTURE (P011-95)</li> <li>b. Cancellation.</li> <li>c. Replaced by Contact N62472-87-C-1450 Crane Contract Settlement.</li> </ol>	<ol> <li>Depot Maintenance - Naval Shipyards</li> <li>a. Non-ADPE &amp; Telec. Equipment (&gt;\$500K) - BORING MACH, HORIZONTAL, CNC</li> <li>b. Cancellation</li> <li>c. Directed to fund collateral equipment project MCON P-622.</li> </ol>

\$960

## **DEFERRALS, CANCELLATIONS, SUBSTITUTIONS** FY 1995 DBOF CA. AL PURCHASES

### NAVAL SHIPYARDS

(\$000 <b>\$</b> )	
	Naval Shipyards
	ot Maintenance - Nav
	Depot Mainte

S.

a. Non-ADPE & Telec. Equipment (>\$500K) - COLLATERAL EQUIPMENT FOR MCON PROJECT P622w (P034-94B & P-24-95) Substitution

\$3,182

- in FY 94 to \$3.182M in FY 95. Collateral equipment acquisition required by mid FY 95 to Project deferred from FY 94 to FY 95. Project revised and increased from \$1.028M ف
  - meet mission requirements for nuclear aircraft carrier scheduled availability. Depot Maintenance - Naval Shipyards 6
- Replaced by automatic welding system which was canceled by Congressional reduction a. Non-ADPE & Telec. Equipment (>\$500K) - PUNCH PRESS, CNC Cancellation ۵.

\$550

- \$3,608 Non-ADPE & Telec. Equipment (>\$500K) - CONTRACT N62472-87-C-1450 SETTLEMENT 7. Depot Maintenance - Naval Shipyards Substitution Θ.
- Emergent mandatory requirement to fund negotiated contract settlement as a result of contract change orders over a period from 1987 to present.

to DBOF program.

## FY 1995 DBOF Capital Program Reconcilliation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- Category of purchase/project name, as noted in the FY 1995 President's Budget a.) Category of purchase/project rb.) Disposition of project: cancellc.) Disposition of related funding
  - Disposition of project: cancellation, deferral and/or substitution

## FY 1995 DBOF C. TAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

## FUNDING DISPOSITION

### NAVAL SHIPYARDS (\$ 000s)

1. Depot Maintenance - Naval Shipyards

a. Non-ADPE and Telec. Equipment (>\$500K)
 60 TON PORTAL CRANES (Project P026-95/Project P058-95)

\$12,500

b. Reduction and Cancellation

award which determined actual line item cost. Project P058-95 \$6.25M obligational authority Disbursement - Project P026-95 reduced from \$6.25M to \$5M following contract and TOA removed by Congressional action 096\$

2. Depot Maintenance - Naval Shipyards

a. Non-ADPE & Telec. Equipment (>\$500K) - TURN/MIL CENTER (P013-95)

b. Cancellation.

Disbursement - \$960K directed to fund unanticipated, mandatory, \$3.608M contract settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co.

3. Depot Maintenance - Naval Shipyards

 Non-ADPE & Telec. Equipment (>\$500K) - HORIZ BORING MILL REMANUFACTURE (P011-95)

\$950

b. Cancellation.

Disbursement - \$950K directed to fund unanticipated, mandatory, \$3.608M contract settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co.

4. Depot Maintenance - Naval Shipyards

a. Non-ADPE & Telec. Equipment (>\$500K) - BORING MACH, HORIZONTAL, CNC

\$1,950

. Cancellation

 c. Disbursement - \$1.95M directed to fund collateral equipment project MCON P-622 (see item #5)

000153

# FY 1995 DBOF CA. AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

## FUNDING DISPOSITION NAVAL SHIPYARDS

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Non-ADPE & Telec. Equipment (>\$500K) - COLLATERAL EQUIPMENT FOR MCON PROJECT P622w (P034-94B & P-24-95) ત્વં

\$3,182

b. Substitution

from \$1.028M in FY 94 to \$3.182M in FY 95. Funded with \$1.95M from item 4 above, 102K from item #6 below, and \$1.13M from Non-ADPE & Telec. Equipment (<\$500K). Disbursement - Project deferred from FY 94 to FY 95. Project revised and increased

\$550

6. Depot Maintenance - Naval Shipyards

a. Non-ADPE & Telec. Equipment (>\$500K) - PUNCH PRESS, CNC

Cancellation

Disbursement - \$448K directed to fund unanticipated, mandatory, \$3.608M contract Remaining \$102K directed to fund collateral equipment for MCON P-622 (item #5). settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co.

7. Depot Maintenance - Naval Shipyards

\$3,608 Non-ADPE & Telec. Equipment (>\$500K) - CONTRACT N62472-87-C-1450 SETTLEMENT

. Substitution

as a result of contract change orders over a period from 1987 to present. Funded \$1.25M Disbursement - Emergent mandatory requirement to fund negotiated contract settlement from item # 1, \$960K from Item # 2., \$950K from item # 3, and \$448K from item # 6.



### DEPARTMENT OF THE NAVY DEFENSE BUSINESS OPERATIONS FUND NAVAL AVIATION DEPOTS

### ACTIVITY GROUP FUNCTION

To provide responsive worldwide maintenance, engineering, and logistics support to the Fleet and ensure a core industrial resource base essential for mobilization; repair of aircraft, engines, and components; and manufacture of parts and assemblies. Also provided are engineering services used in the development of hardware design changes and technical and other professional services needed to resolve maintenance and logistics problems.

### ACTIVITY GROUP COMPOSITION

Activities		Location
NAVAVNDEPOT, Alameda	•	Alameda, CA
NAVAVNDEPOT, Cherry Point		Cherry Point, NC
NAVAVNDEPOT, Jacksonville		Jacksonville, FL
NAVAVNDEPOT, North Island		San Diego, CA
NAVAVNDEPOT, Norfolk		Norfolk, VA
NAVAVNDEPOT, Pensacola		Pensacola, FL

### BUDGET HIGHLIGHTS

BRAC-93 Decisions. The budget incorporates the Congressional approval for the closure of Naval Aviation Depots (NADEPs) Alameda, Norfolk and Pensacola. The Cease Primary Mission Operations (CPMO) and Closure Implementation (CI) dates for NADEP Pensacola are September 1995 and March 1996 respectively. CPMO and CI dates for NADEPs Norfolk and Alameda are September 1996 and March 1997 respectively. Attainment of these dates is predicated on the availability and timeliness of Base Realignment and Closure (BRAC) funding. Issues facing the closing depots are very different from the ones facing the remaining depots. closing depots face the task of completing their remaining mission work as efficiently as possible, while at the same time phasing down toward closure. The remaining depots face the task of gearing up for additional workload transferring from the closing depots, while at the same time continuing their strong commitment to productivity improvement and cost efficiency. costs in this budget are \$143.4M in FY 1995, \$146.9M in FY 1996, and \$6.2M in FY 1997. There are BRAC costs at the remaining depots as well as the closing depots. This is due to the transitioning of workload from the closing depots to the gaining depots as a result of BRAC 93 workload realignment. Pensacola becomes a non-DBOF activity in FY 1996 and NADEPs Alameda and Norfolk become non-DBOF activities in FY 1997. closing depots will become "Mission Funded" after their CPMO dates and will receive additional BRAC funding of \$8.9M in FY 1996 and \$33.3M in FY 1997 to finance the last six months of operations.

**STABILIZED RATES**. The NADEPs stabilized billing rates for FY 1994 through FY 1997 are as follows:

	<u>FY 1994</u>	FY 1995	<u>FY 1996</u>	FY 1997
Rate	\$106.24	\$133.80	\$110.42	\$114.10
% Change	_	+25.9%	-17.5%	+3.3%

The FY 1995 stabilized rates included a \$16.35 positive recoupment to recover prior years losses and a \$1.90 surcharge per direct labor hour for the Joint Logistics Systems Center (JLSC). The FY 1996 stabilized rates were not increased to recover prior years losses at the closing depots. Instead, a Passthrough of \$261.3M and a Redistribution of \$245.0M are budgeted to offset these losses. The proposed FY 1997 composite stabilized rate of \$114.10 is an increase of 3.3% when compared with the FY 1996 composite rate. This increase is due primarily to inflation.

<u>Workload</u>. New reimbursable orders for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
Orders	\$1,815.9	\$1,801.3	\$2,003.5	\$1,352.4
% Change	_	8%	+11.2%	-32.5%

The increase from FY 1995 to FY 1996 is due to the FY 1996 Passthrough of \$261.3M and increased BRAC funding of \$3.5M offset by reduced workload and the closure of NADEP Pensacola. The Passthrough is to offset prior years losses at the three closing depots caused by less than breakeven rates in FY 1993 and FY 1994 and underapplication of overhead in FYs 1994, 1995, and 1996 resulting from reduced workload associated with BRAC 93. The decrease from FY 1996 to FY 1997 is due to reduced BRAC funding of \$140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk. FY 1995, FY 1996, and FY 1997 stabilized rates include a surcharge for the JLSC of \$30.0M, \$25.5M, and \$24.4M respectively. This translate to a surcharge amount of \$1.90 per DLH in FY 1995, \$1.92 per DLH in FY 1996, and \$1.94 per DLH in FY 1997.

**Revenue**. Revenue for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
Revenue	\$1,772.4	\$2,037.7	\$1,790.5	\$1,432.9
% Change	-	+15.0%	-12.1%	-20.0%

The increase from FY 1994 to FY 1995 is due mainly to the \$188.6M recoupment, increased BRAC costs of \$88.5M, and JLSC surcharge of \$30.0M. The decrease from FY 1995 to FY 1996 is due to reduced workload and the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 is due to reduced BRAC costs of \$140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk in FY 1996.

<u>Costs</u>. Costs for FY 1994 through FY 1997 are as follows (Dollars in Millions):

 FY 1994
 FY 1995
 FY 1996
 FY 1997

 Costs
 \$1,961.4
 \$2,017.0
 \$1,866.7
 \$1,408.4

 % Change
 +2.8%
 -7.5%
 -24.6%

The increase from FY 1994 to FY 1995 is due mainly to increased BRAC costs of \$88.5M. The decrease from FY 1995 to FY 1996 is due to reduced workload and the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 is due to reduced BRAC costs of \$140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk in FY 1996.

<u>Net Operating Results (NOR)</u>. NOR for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	<u>FY 1994</u>	FY 1995	FY 1996	FY 1997
NOR	\$-192.0	\$-8.8	\$-101.6	\$0.0
% Change	_	+95.4%	-105.5%	+100.0%

The increase from FY 1994 to FY 1995 is due mainly to the \$188.6M recoupment. The decrease from FY 1995 to FY 1996 is due to an underapplication of overhead at the closing depots due to reduced workload. The increase from FY 1996 to FY 1997 reflects breakeven stabilized rates at the gaining depots and the closure of all three closing depots.

Accumulated Operating Results (AOR). AOR for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	<u>FY 1994</u>	<u>FY 1995</u>	FY 1996	FY 1997
AOR	\$-395.4	\$-404.8	\$0.0	\$0.0
% Change	_	-2.4%	+100.0%	0.0%

The FY 1995 AOR and FY 1996 NOR losses are recovered by means of a Passthrough of \$261.3M and Redistribution of \$245.0M in FY 1996. These losses are at the closing depots.

<u>Unit Cost Goals</u>. The budget reflects the following FY 1994-1997 unit cost goals with BRAC and without BRAC (Dollars and Direct Labor Hours (DLHs) in Millions):

WITTH BDAC

	MT.I.U	BRAC	
FY 1994	<b>FY 1995</b>	<b>FY 1996</b>	FY 1997
\$1,961.4	\$2,017.0	\$1,866.7	\$1,408.4
17.186	16.648	15.691	13.398
\$114.13	\$121.16	\$118.97	\$105.12
_	-3.1%	-5.7%	-14.6%
-	6.2%	-1.8%	-11.6%
	WITHO	UT BRAC	
FY 1994	FY 1995	FY 1996	FY 1997
\$1,906.5	\$1,873.6	\$1,719.8	\$1,402.2
16.506	15.315	14.321	12.772
\$115.50	\$122.34	\$120.09	\$109.79
_	-7.2%	-6.5%	-10.8%
-	5.9%	-1.8%	-8.6%
	\$1,961.4 17.186 \$114.13 - - <b>FY 1994</b> \$1,906.5 16.506	FY 1994 \$1,961.4 \$1,961.4 \$2,017.0 17.186 \$114.13 \$121.16 -3.1% 6.2% WITHO  FY 1994 \$1,906.5 \$1,906.5 \$16.506 \$115.50 \$122.34 -7.2%	\$1,961.4 \$2,017.0 \$1,866.7 17.186 16.648 15.691 \$114.13 \$121.16 \$118.97 -3.1% -5.7% 6.2% -1.8% WITHOUT BRAC FY 1994 \$1,906.5 \$1,873.6 \$1,719.8 16.506 \$15.315 14.321 \$120.09 -7.2% -6.5%

The slight increase in Unit Cost, without BRAC, from FY 1994 to FY 1995 is due primarily to direct labor hours decreasing at a faster rate than costs due to the fixed nature of some costs (e.g., utilities, legal services, accounting, budgeting, and ADP services). The decrease from FY 1995 to FY 1996 reflects the efficiencies of downsizing from six to five NADEPS with the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 reflects the efficiencies of downsizing from five to three NADEPs with the closure of NADEPs Alameda and Norfolk in FY 1996.

<u>Performance Indicators</u>. Some performance Indicators or ratios for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	<b>FY 1996</b>	<b>FY 1997</b>
Assets/Liability Ratio	1.06	1.74	4.00	3.37
A/R Turnover Ratio	8.7	9.1	9.0	9.2
Inventory Turnover Ratio	12.3	14.6	18.9	19.7
Indirect Ratio	.40	.37	.37	.34
Schedule Comformance	96.0%	100.0%	100.0%	100.0%
Quality Deficiency Report	s 0.2%	0.0%	0.0%	0.0%
Net Operating Results	-185.3	-9.4	404.8	0.0

The improvement in the ratios above reflect the recoupment of \$188.6M in FY 1995 and passthrough of \$261.3M in FY 1996; aggressive inventory management and overhead cost control policies; and downsizing from six to three depots.

<u>Civilian End Strength and Workyears</u>. Civilian End Strength and Workyears for FY 1994 through FY 1997 are as follows:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	FY 1997
E/S	17,145	14,797	12,969	** <del>12,101</del>
% Change	_	-13.7%	-12.4%	-6.7%
WYs w/o OT	17,233	16,463	*14,875	**12,263
% Change	_	-4.5%	-9.6%	-17.6%

<sup>\*</sup> The number reported excludes 41 work years for NADEP Pensacola in FY 1996. These work years will be executed after mission cease date and will be funded directly through the BRAC account vice DBOF.

<sup>\*\*</sup> The number reported excludes 76 end strength and 474 work years at NADEP Alameda and 60 workyears at NADEP Norfolk, who will be funded directly through BRAC.

The downward trend in civilian personnel for all years is driven principally by decreased workload and the closure of NADEP Pensacola in FY 1995 and NADEPs Alameda and Norfolk in FY 1996. This budget reflects the following amounts for Reduction-in-Force (RIF) and Voluntary Separation Incentive Pay (VSIP) (Dollars in Millions):

	<u>FY 1994</u>	FY 1995	FY 1996	FY 1997
SIP /	\$9.6	\$33.4	\$22.0	\$0.0
RIF/Severance Pay	1.1	5.2	8.7	0.0
Health Care/Liability	0.0	0.2	0.4	0.0
Total	\$10.7	\$38.8	\$31.1	\$0.0

Military End Strength and Workyears. Military End Strength for FY 1994 through FY 1997 are as follows:

	<u>FY 1994</u>	<u>FY 1995</u>	FY 1996	FY 1997
E/S	220	200	145*	149
% Change	<del>-</del>	-9.1%	-27.5%	+2.8%
WYs	230	200	145*	149
% Change	-	-13.0%	-27.5%	+2.8%

\*Does not include 54 end strength and workyears at activities in closure status.

The decrease in Military End Strength from FY 1994 to FY 1997 is due to the reduced workload and the closure of NADEPs Pensacola in FY 1995 and NADEPs Alameda and Norfolk in FY 1996.

<u>Headquarters Costs and End Strength</u>. Headquarters Costs and End Strength for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	<u>FY 1994</u>	FY 1995	FY 1996	FY 1997
Costs	\$16.7	\$17.1	\$17.9	\$18.4
Civ E/S	193	193	193	193
Civ WYs	192	192	192	192
Mil E/S	46	46	51	51
Mil WYs	46	46	51	51

The increase in Headquarters costs from year to year is due mainly to inflation. The increase in military end strength from FY 1995 to FY 1996 is due to an omission of several overseas military billets in the FY 1995 Congressional Budget.

Environment. The NADEPs continue to make significant strides toward protection of human health and environment in this budget. All Class I and Class II requirements are funded to ensure full compliance with statutory, regulatory, or other legal standards. The following amounts are included in this budget for environmental compliance: \$30.9M in FY 1994, \$31.6M in FY 1995, \$22.2M in FY 1996, and \$9.8M in FY 1997. Additional environmental costs associated with BRAC 93 reflected in this budget are \$1.4M in FY 1994, \$9.8M in FY 1995, and \$8.7M in FY 1996.

<u>Summary of Capital Purchases Program (CPP)</u>: The NADEP CPP budget reflects the following requirements (Dollars in Millions):

	FY 1995	FY 1996	FY 1997
Grand Total Non-ADP CPP Grand Total ADPE CPP	\$5.7 4.2	\$19.5 3.3	\$35.4 1.3
Grand Total CPP	\$9.9	\$22.8	\$36.7

NADEP capital investments were developed to reflect the impact of the closures of NADEPs Alameda, Norfolk, and Pensacola and compliance with the Chief of Naval Operations approved naval aviation depot maintenance industrial strategy. The CPP budget includes \$5.1M in FY 1996 and \$27.8M in FY 1997 for the purchase of Consolidated Automated Support System (CASS) stations. The Navy's CASS system along with the Army's Integrated Family of Test Equipment are now designated as the initial Department of Defense (DoD) families of testers for current and future DoD test needs. There is sufficient depreciation in the FY 1996 and FY 1997 rates to fund all CPP requirements.

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NADEP

### REVENUE AND EXPENSES

(Dollars in Millions)

	<u>FY 1994</u>	FY 1995	FY 1996	_FY 1997
Revenue:				
Gross Sales	1,772.4	2,037.7	1,790.6	1,432.9
Operations	1,684.0	1,958.9	1,720.1	1,372.3
Capital Surcharge	3.1	29.4	25,5	24.4
Depreciation except Maj Const	70.9	49.4	45.0	36.1
Major Construction Depreciation	14.5	0.0	0.0	0.0
Other Income	0.0	0.0	261.3	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	1,772.4	2,037.7	2,051.9	1,432.9
Expenses:			•	
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	47.3	30.6	25.5	21.9
Salaries and Wages:				
Military Personnel	12.3	9.0	8.6	6.3
Civilian Personnel	837.2	761.7	761.7	593.2
Materials, Supplies and				
Parts used in Operations	621.7	704.1	636.0	555.2
Facility Repair Charge	12.7	1.5	6.9	6.0
Depreciation - Capital	70.9	49.4	45.0	36.1
Contracted Engineering Services	20.2	21.4	22.3	14.0
Lease Costs	0.9	1.3	1.3	1.0
Purchased Utilities	51.3	47.0	38.8	23.4
Purchased Communications	1.9	1.6	1.1	0.4
Equipment Maintenance	7.0	8.5	8.6	7.3
Fuel	4.3	3.3	3.0	2.5
Other Expenses	273.6	377.6	307.8	140.9
Total Expenses	1,961.4	2,017.0	1,866.7	1,408.4
Operating Result	(189.0)	20.6	185.2	24.4
Less Capital Surchg Reservation	3.1	29.4	25.5	24.4
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	6.8	(0.6)	245.1	(0.0)
Net Operating Result	(185.3)	(9.4)	404.8	(0.0)
Prior Year AOR	(210.2)	(395.4)	(404.8)	0.0
Accumulated Operating Result	(395.4)	(404.8)	0.0	(0.0)

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY NADEP

### SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 1,815.9	FY 1995 1,801.3	FY 1996 2,003.5	FY 1997 1,352.4
a. Orders from DoD Components	898.2	1,133.9	1,260.1	874.9
Department of the Navy	805.5	982.7	1,092.5	862.2
Operations and Maintenance, Navy	464.8	591.8	727.8	507.8
Operations and Maintenance, Marine Corps	0.3	0.3	0.0	0.0
O&M, Navy Reserve	26.2	47.2	20.3	30.3
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	275.9	299.2	294.9	289.8
Weapons Procurement, Navy	(2.0)	0.8	0.8	0.7
Shipbuilding & Conversion, Navy	0.2	0.0	0.0	0.0
Other Procurement, Navy	4.8	6.2	4.6	4.1
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	35.3	32.4	35.9	20.2
Military Construction, Navy	0.0	0.0	0.0	0.0
Other Navy Appropriations	(0.0)	4.7	8.1	9.2
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	0.5	1.5	0.9	0.0
Army Operation & Maintenance Accounts	0.4	1.2	0.0	0.0
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	0.0	0.0	0.0	0.0
Army Other	0.0	0.2	0.8	0.0
Department of the Air Force	8.0	5.0	18.4	5.3
Air Force Operation & Maintenance Accounts	7.4	2.1	16.0	3.1
Air Force Res, Dev, Test & Eval Accounts	0.1	0.0	0.0	0.0
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.6	2.9	2.4	2.1
DoD Appropriated Accounts	84.3	144.8	148.3	7.5
Base Closure and Realignment	63.7	143.4	146.9	6.2
Operation & Maintenance Accounts	1.7	0.1	0.1	0.1
Res, Dev, Test & Eval Accounts	0.3	0.1	0.1	0.1
Procurement Accounts	5.3	1.1	1.1	1.0
DoD Other	13.4	0.1	0.1	0.1
b. Orders from DBOF Business Areas	823.3	620.0	713.3	450.2
c. Total DoD	1,721.5	1,753.8	1,973.3	1,325.2
d. Other Orders	94.4	47.4	30.1	27.3
Other Federal Agencies	5.4	7.5	3.4	3.4
Trust Funds (including FMS)	88.8	39.6	26.6	23.6
Non Federal Agencies	0.2	0.2	0.2	0.3
2. Carry-In Orders	1,314.0	1,357.4	1,121.0	1,072.6
3. Total Gross Orders (available funding)	3,129.8	3,158.7	3,124.5	2,425.1
4. Carry-Out Orders	1,357.4	1,121.0	1,072.6	992.2
Change in Backlog (carry-out less carry-in)	43.4	(236.4)	(48.4)	(80.4)
5. Total Gross Sales	1,772.4	2,037.7	2,051.8	1,432.9

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
NADEP

NADEP February 1995 (\$ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	12,320	240	(3,513)	9,047	243	(720)	8,570	253	(2,492)	6,331
Civilian Personnel Compensation	829,353	23,341	(15,518)	837,176	19,766	(95,212)	761,730	21,319	(189,813)	593,236
Travel	43,059	812	(15,184)	28,687	370	(3,727)	25,330	290	(4,633)	20,987
Material & Supplies - Commercial	79,825	2,217	(16,323)	65,719	1,972	(9,126)	58,565	1,757	(14,430)	45,892
Material & Supplies - from DBOF	577,223	73,423	(8,960)	641,686	(97,705)	36,443	580,424	54,989	(123,571)	511,842
Other Intrafund (DBOF) Purchases	156,476	11,313	(70,242)	97,547	(4,727)	(2,316)	90,504	2,310	(43,249)	49,565
Transportation	4,199	118	(2,424)	1,893	95	(889)	1,300	39	(381)	958
Capital Investment Depreciation	70,891	0	(21,500)	49,391	0	(4,431)	44,960	0	(8,819)	36,141
Other Purchases	219,094	6,135	60,644	285,873	8,576	860	295,309	8,859	(160,694)	143,474
Total Operating Budget * *Includes Reimbursements	1,992,440	117,599	(93,020)	2,017,019	(71,410)	(78,917)	1,866,692	89,816	(548,082)	1,408,426

### DEFENSE BUSINESS OPERATIONS FUND NAVAL AVIATION DEPOTS CHANGES IN OPERATION (DOLLARS IN MILLIONS)

	TOTAL COST
FY 1994 ACTUAL	\$1,992.4
1. FY 1995 CONGRESSIONAL	\$2,097.2
2. PRICING ADJUSTMENT A. PAY RAISE (1) FY 1995 LOCALITY PAY	\$4.7 4.7
3. PROGRAM CHANGES. A. AIRFRAMES B. ENGINES C. MODIFICATIONS D. COMPONENTS E. ENGINEERING SERVICES F. OTHER	(\$109.3) 44.8 6.3 (19.4) (87.0) (53.8) (0.2)
4. OTHER CHANGES IN:  A. BRAC COST  B. SEVERANCE PAY/SIP  C. DISRUPTION COSTS ASSOCIATED WITH CLOSURE	\$24.4 (16.8) 7.2 34.0
5. FY 1995 CURRENT ESTIMATE	\$2,017.0

### DEFENSE BUSINESS OPERATIONS FUND NAVAL AVIATION DEPOTS CHANGES IN OPERATION (DOLLARS IN MILLIONS)

	TOTAL COST
1. FY 1995 CURRENT SUBMIT	\$2,017.0
2. PRICING ADJUSTMENT A. PAY RAISE	(\$71.4)
(1) FY 1996 PAY RAISE (2) ANNUALIZATION  B. STOCK FUND — FUEL C. STOCK FUND — NONFUEL D. IF PURCHASES E. GENERAL PURCHASE INFLATION F. MILITARY PERSONNEL	12.1 7.7 0.2 (97.9) (4.7) 11.0 0.2
3 PROGRAM CHANGES A. AIRFRAMES B. ENGINES C. MODIFICATIONS D. COMPONENTS E. ENGINEERING SERVICES F. OTHER	(\$18.8) (25.6) (18.1) 3.0 40.5 (2.9) (15.7)
4. OTHER CHANGES IN:  A. SEVERANCE PAY/SIP  B. BRAC COSTS  C. REDUCE INDIRECT/G&A EXPENSE AS CLOSURE PROCEEDS INCLUDING CLOSURE OF PENSACOLA	(\$60.1) (7.7) 3.5 (55.9)
5. FY 1996 CURRENT ESTIMATE	\$1,866.7

### DEFENSE BUSINESS OPERATIONS FUND NAVAL AVIATION DEPOTS CHANGES IN OPERATION (DOLLARS IN MILLIONS)

	TOTAL COST
1. FY 1996 CURRENT ESTIMATE	\$1,866.7
2. PRICING ADJUSTMENT: A. PAY RAISE	\$89.8
(1) FY 1997 PAY RAISE	14.3
(2) ANNUALIZATION	7.0
B. ŠTOCK FUND - NONFUEL	55.0
C. IF PURCHASES	2.3
D. GENERAL PURCHASE INFLATION	10.9
E. MILITARY PERSONNEL	0.3
3. PROGRAM CHANGES:	(\$175.7)
A. AIRFRAMES	(39.2)
B. ENGINES	(54.1)
C. MODIFICATIONS	(18.3)
D. COMPONENTS	(35.3)
E. ENGINEERING SERVICES	0.7
F. OTHER	(29.5)
4. OTHER CHANGES IN:	(\$372.4)
A. BRAC COSTS	(140.7)
B. SEVERANCE PAY/SIP	(30.2)
C. ELIMINATION OF INDIRECT/G&A COST — CLOSURE OF ALAMEDA AND NORFOLK	(201.5)
5. FY 1997 CURRENT ESTIMATE	\$1,408.4

			Peacetim	e
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	176.1	0.0	176.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	633.1	0.0	633.1	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	657.0	0.0	657.0	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	152.2	0.0	152.2	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	38.0	0.0	38.0	0.0

			Peacetir	ne
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	152.2	0.0	152.2	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	685.9	0.0	685.9	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	707.4	0.0	707.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	130.7	0.0	130.7	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	32.7	0.0	32.7	0.0

			Peacetim	e
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	130.7	0.0	130.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	579.9	0.0	579.9	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	639.0	0.0	639.0	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	71.6	0.0	71.6	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	17.9	0.0	17.9	0.0

			Peacetim	ıe
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	71.6	0.0	71.6	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	557.0	0.0	557.0	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	557.7	0.0	557.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	70.9	0.0	70.9	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0	•		
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	17.7	0.0	17.7	0.0

CAPITAL BUDGET SUMMARY DEPARTMENT OF THE NAVY DEPOT MAINTENANCE-AVIATION DEPOTS (\$ IN MILLIONS)

* 174	TEM	FY 1994	-	FY 1995	•	FY 1996	Ŧ	FY 1997
	DESCRIPTION	Actual Qty Oblign	Actual Obligns Oty	Cost	Š	Totai Cost	Ş	Cost
	GRAND TOTAL NON-ADP CAPITAL PURCHASES PROGRAM					40 404		
				20.5		13:401	1	20.410
	GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM		1.229	4.193		3.364		1.275
	Department of the Navy ADP Capitai Purchases Program- Submit Joint Logistics Systems Center - Submit		1.002	4.193		3.364		1.275
	GRAND TOTAL CAPITAL PURCHASES PROGRAM		11.664	9859		22 R45		36 68

## CAPITAL BUDGET SUMMARY NON-ADP PROGRAM-SUBMIT DEPARTMENT OF THE NAVY DEPOT MAINTENANCE-AVIATION DEPOTS (\$ IN MILLIONS)

1	ITEM	FY 1994	FY 1995	5	FY 1996	Ŧ	FY 1997
# WE	DESCRIPTION	Oty Obligue	Total Otv	Cost	Total	ż	Total
F EL 0002A   N EL 0000   E EL 00016A   E EL 00024A   F EL 00018	14. NON-ADP EQUIPMENT (\$500,000 and Over)  A. Replacement  HYDROFORMING MACHINE  R CORPORATE ASKARS UPGRADE  R 5-AXIS MACHINING CENTER  R 7-EST COMPUTER AND INSTRUMENTATION  FUEL METERING UNIT TEST STAND	1 2.791		<b>6</b>			1.000
	Subtotal - Replacement	2.791		1.859	4.790		1.000
F EL 0004B	B. Productivity PIGH PRESSURE COMPRESSED AIR STORAGE SYSTEM			1.200			
	Subtotal - Productivity			1.200	0.000		
NEL 000X	C. New Mission N CASS STATION EQUIPMENT				5.090	4	27.773
	Subtotal - New Mission				5.090		27.773
	SUBTOTAL - NON-ADP EQUIPMENT (\$500,000 and Over)	2.791		3.059	9.880		28.773
N ES 0000	1B. TOTAL NON-ADP EQUIPMENT (Less than \$500,000)	2.750		0.462	5.762		3.424
	2. GRAND TOTAL NON-ADP EQUIPMENT	5.541		3.521	15.642		32.197
N MC 0000	3. TOTAL MINOR CONSTRUCTION (\$300,000 and Less)	2.894		2.145	3.839		3.213
	GRAND TOTAL NON-ADP CAPITAL PURCHASES PROGRAM	8.435		5.666	19.481		35.410

CAPITAL BUDGET SUMMARY ADP PROGRAM - SUBMIT DEPARTMENT OF THE NAVY DEPOT MAINTENANCE - AVIATION DEPOTS (\$ IN MILLIONS)

	TEM	Ŧ	FY 1994	F	FY 1995	Ŧ	FY 1996	Ŧ	FY 1997
# LINE#	DESCRIPTION	Ş Ş	Actual	Qty	Total	Oty.	= •	Ωŧζ	Total
F KL 021A F E KL 4003 F E KL 4004 F F KL 013A F	1A. ADP & TELECOMMUNICATIONS EQUIPMENT (\$100,000 and Over) A. Replacement 610/640 SYSTEM R MULTI-USER COMPUTER SYSTEM R FILE SERVER SYSTEM R FILE SERVER SYSTEM R TELEPHONE SYSTEM		0.358 0.227 0.065		0.029 0.060 1.500		1800		
	Subtotal - Replacement		0.650		1.589		0.000		0.000
00000J 00253B 001B 00285B 00284B	B. Productivity DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) ADPE EQUIPMENT DESKTOP PUBLISHING SYSTEM INFORMATION SUBSCRIPTION SYSTEM SDAE/ASKARS TANDEM P VAXT REPLACEMENT			ю <del>-</del> -	1.859 0.375 0.283		0.834	-	0.700
							0.250		0.475
***************************************	Subtotal - Productivity		0.000		2.517	$\ \cdot\ $	2.234		1.275
E KL 3001 N E KL 5001 N C KL 00288C N E KL 00013 N	C. New Mission N NETWORKED CD-ROM SYSTEM N EDMICS N DEFENSE MESSAGE SYSTEM UPGRADE N COMPUTER SYSTEM UPGRADE	-	0.327				0.717 0.200 0.114	***	
	Subtotal - New Mission		0.327		0.000		1.031		0.000
	SUBTOTAL ADP & TELECOMMUNICATIONS EQUIFMENT (\$100,000 and Over)		0.977		4.106		3.265		1.275
N KT 0000	1B. ADP & TELECOMMUNICATIONS EQUIPMENT (Less than \$100,000) Replacement/Productivity/New Mission		0.025		0.087		0.099		0.000
	2. GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM		1.002		4.193		3.364		1.275
		-				-		Ì	-

## CAPITAL BUDGET SUMMARY JOINT LOGISTICS SYSTEMS CENTER - SUBMIT DEPARTMENT OF THE NAVY DEPOT MAINTENANCE - AVIATION DEPOTS (\$ IN MILLIONS)

			Č		- 3	FY 1996	- 8	FY 1997
		Obiigns	ins cry	Cost	<u>\$</u>	Cost	χ σ	
	1A. ADP & TELECOMMUNICATIONS EQUIPMENT (\$100,000 and Over)							
	B. Productivity			*				
E KL 4001 P	ENGINEERING CAD/CAM SYSTEM, PHASE I	-	0.427	·				
	Subtotal - Productivity	o	0.427					
	C. New Mission							
C KL 00227C N	EDMICS	-	1.800					
	Subtotal - New Mission	-	1.800				<u> </u>	
	SUBTOTAL ADP & TELECOMMUNICATIONS EQUIPMENT (\$100,000 and Over)	N N	2.227					
	1B. ADP & TELECOMMUNICATIONS EQUIPMENT (Less than \$100,000) Replacement/Productivity/New Mission	0	0.000					
	2. GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM	2	2.227	0.000	0	0.000		

Cuine No. A literal Description   In Adulting Identification   In Adulting Identification   In Adulting Identification   In Adulting Identification   In Interpret Secretary Point   Interpret Secretary   Interpret Secretary Point   Interpret Secretary   Interpret Sec			(Dollar	OntchAses Justiff (Dollars in Thousands)	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	Z O					,		A. FY 1996/1997 BIENNIAL BUDGET	6/1997 B T	SENNIA
95   FY 1996   FY 1997   T   TOTAL     UNIT   TOTAL   UNIT	B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/			I C. Lin I NELO	e No. & Ite	m Descrip	askans ASKARS	UPGRAD	E				D. Activity	Identifica	ation
T   TOTAL     UNIT   TOTAL     UNIT   1   UNIT   1   UNIT   1   UNIT   COST   C							 	FY 1995			FY 1996	† - ·		-Y 1997	
8 serious e seri	ELEMENTS OF COST	ی ر		AL I ST I QUAN				!	TOTAL	QUANT	UNIT	TOTAL COST I		UNIT I	TOTAL
8 serious (cksonville	FEL0003AR CHERRY POINT EEL4001AR JACKSONVILLE		<u> </u>		·	<b> </b>	ļ ·	1,859	1,859	<b> </b>	2,140	2,140	†	†	
I this project is part of the NADEP Corporate ASKARS Upgrade project which proposes to purchase and install upgraded hardware, software, and material handling systems with respect to storage, kitting, and retrieval or fleady for issue (FFI) aircraft parts and FE components for the purpose of therevening as hong term production work stopage caused by the fallente of nonavailable obsolete parts which is no longer supported by the stallent end flewary system is utilized to provide a Just In Time (JIT) management and delivery system production work stopage caused by the fallente of during standard depot level maintenance (SDLM, Auriame change kit incorporation during SDLM and aircraft parts concurrently removed and reworked during standard depot level maintenance (SDLM, Auriame change kit incorporation during SDLM and aircraft parts manufactured to support modifications. The Askars is part of the NADEP long range strategic plan to incorporate manutacturing resource planning 2 critical path modeling, just in time delivery into the production process. It is essential to the success of the changing production processes, and to accomedate an increase in the variety of airframes undergoing SDLM at NADEP Jacksonville and a significant increase in manufacturing and modification workload.  Anticipated benefits from the execution of this project are an increase in the retreated and increased reliability in inventory levels.  The ASKARS Project Managers Office has estimated that system support costs will increase to \$1,500,000 per year should the Corporate Upgrade not be executed.	TOTAL	-   -				_		1,859	1,859		2,140	2,140		- † -	
	Unstitication:  This project is part of the NADEP Corporate ASKARS Upgupgaded hardware, software, and material handling syste of Ready For Issue (RFI) aircraft parts and F/E component production work stoppage caused by the failure of nonava by the manufacturers. The Askars system is utilized to profuse a forest parts concurrently removed and reworked during Airfame change kit incorporation during SDLM and aircraft for minimize production floor prace requirements and redu. Askars reliability and maintainability problems, is necessare into depot production. The Askars is part of the NADEP for critical path modeling, just in time delivery into the product reductions in turn around time and costs; and to accomodated a significant increase in manufacturing and modificatic and a significant increase in manufacturing and eventications by decreasing system downtime due to mainted productivity by decreasing system downtime due to mainted that ASKARS Project Managers Office has estimated that year should the Corporate Upgrade not be executed.	grade project where with respect the for the purportiable obsolete ovide a Just In by standard dept to parts manufacter ce cycle time. To support DC by to support DC by to support DC by to support DC by to support DC by to support DC by the state an increase on workload.  an increase in definition of the support DC by state and increase in deal of the support DC by support DC b	vich proport to storages of prevy parts which proports which clark the Askar OD manda gic plant in the varients eased relistic costs will in the costs will be	ses to purc e, litting, a enting a lor h is no long manageme aintenance upport mox s upgrade, ted integral o incorporal al to the soral al to the soral al to the soral	thase and ind retrieval of the retrieval	nstall led livery syste livery syste The Aska to beinty in the busin, the demonstrate groing SD rgoing SD	em rrs is critic equired to ess practic ource productic g productic	al resolve se ses ining 2 in process DEP Jacks	Brous ses, sonville		•	·			

	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	I A. FY 1996/1997 BIENNIAL I BUDGET
B. Component/Business Area Navy/Depot Maintenance/Aviation Depot	I C. Line No. & Item Description I EEL00016AR 5-AXIS MACHINING CENTER	I D. Activity Identification JACKSONVILLE
	FY 1996	FY 1997
ELEMENTS OF COST	I OUNT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I OUNT I TOTAL	TOTAL! I UNIT I TOTAL COST I QUANTI COST I COST
<b>-</b>	1 1,650 1	1,650
Justilication  The existing machines assigned to the NADEP JAX Mills and CNC (FY 1996. They are both producing parts continuously on first shift world the electronic and computer components have already exceeded to Center, in addition to resolving serious reliability and maintainability part of NADEP Jacksonville long range strategic plan to incorporate and costs; and to accomodate a significant increase in manufacturing. When replacement parts are needed, they have to be manufactured, will be subject to major downtime, need major repairs and replacement proprocessors and all new electronic and mechanical components. The higher spindle speeds and more equipment horsepower will rest.  A Cost Benefit Analysis was performed with an: Average Annual Sa	Justilication  The existing machines assigned to the NADEP JAX Mills and CNC (Computer Numerical Control) Machine Shop 96412, were manufactured in 1992 and will be 14 years old in 67 years of the detection and computer components have afreedy exceeded the articipated useful if of the years. Vendors do not store parts for systems this out. The 5 Axis Machining of the electronic and computer components have afreedy exceeded the articipated useful if of the years. Vendors do not store parts for systems this out. The 5 Axis Machining Center, in addition to resolving serious reliability and manufacturing and weapons systems to support long range with the chick of the production processes. It is exsential to reductions in turn around time and costs; and to accomodate a significant increase in manufacturing and weapons systems component repair.  When replacement parts are needed, they have to be manufactured. Mechanical parts are also showing signs of major wear. It replacement is not considered, the machines will be subject to major downlime, need major replacement of most electronic/computer systems. The new 5-axis machining centers would have state-of-the-art microprocessors and all new electronic and mechanical components, thereby eliminating machine downtime while replacement parts are being manufactured.  A Cost Benefit Analysis was performed with an: Average Annual Savings: \$40,918 starting in Oct 97 Pay Back Period: +10 years Rate of return: 2.5%	ill be 14 years old in many The 5 Axis Machining ge Initiatives. It is in turn around time red, the machines e state-of-the-art sd.

S. Componant/Business Aree  1. C. Line No. & Itam Dascription  Asy//Depot Maintenance/Aviation Depot  1. C. Line No. & Itam Dascription  1. Componant/Business Aree  1. C. Line No. & Itam Dascription  1. Componant/Business Aree  1. C. Line No. & Itam Dascription  1. Componant/Business Aree  1. C. Line No. & Itam Dascription  1. Componant/Business Aree  1. Componant	ion Deport I C. Line No. & Itam Description I C. Line No. & Itam Description I Deport I EEL00024AR TEST CONFUTER AND INSTRUMENTATION I JACKSONVILLE FY 1996 FY 1997 I CANTON I TOTAL I UNIT I TOTAL I UNI	Commence (10)	(Dollars in Thousands)	I A. FY 1996/1997 BIENNIAL I BUDGET	BIENNIA
P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Peckard).	P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the manufacturer (Hewlett Packard).  I 1,000 1,000 1 1 1 1 1,000 1,000 1 1 1 1	<ol> <li>Component Depot Maintenance/Aviation Depot</li> </ol>	I C. Line No. & Itam Dascription I EEL00024AR TEST COMPUTER AND INSTRUMENTATION	D. Activity identific	ation
P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).  P Engine Test Shop, 96105, is no longer produced and is decreesingly supported by the menufacturer (Hewlett Peckard).	UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   COS		FY 1996	FY 1997	
P Engine Test Shoy hesed as used part nd control during le e reliability, support on operations. A n	P Engine Test Shoy hesed es used part nd control during je s reliability, support on operations. A n rith an: Average Ar	ELEMENTS OF COST	UNIT I TOTAL! I UNIT I TOTAL! I UNIT I TOTAL! I UNIT I COST I COST I QUANTI COST I COST I QUANTI COST I	OUANTI COST	T0TA
P Engine Test Shorthesed es used part and control during je e reliability, support on operations. A nu	P Engine Test Shoy hesed es used part and control during le reliability, support on operations. A nutto an exercise Artith an: Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Artith and Average Average Artith and Average Averag		•		
	A Cost Benefit Analysis was performed with an: Average Annual Savings: \$108,662 starting in Sep 1897 Pay Back Period: 8.7 yeers. Rate of return: 10.9%	ustilication:  The present system located in the NADEP arts for the system now have to be purch. The system is used for data acquisition ark to tast cell in the future. The benefits are taximize test cell availability for production formetion to angine program angineers.	P Engine Test Shop, 96105, is no longer produced end is decreesingly supported by the menufacturer (Hewlett Pec hesed es used parts from a third party vandor. In a control during let engine testing. A modern systam using the newast technology will anable NADEP to support englatify, supportability, and readily evallable replacement parts which will minimize test cell downtime end on operations. A naw systam will also improva the process of troubleshooting engines by providing more detailed on operations.	kard).	

	(Dollars in Thousands)	BUDGET	
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/	f C. Line No. & tlem Description I FEL0001RR FUEL METERING UNIT TEST STAND	D. Activity Identification CHERRY POINT	ation
		FY 1997	
ELEMENTS OF COST	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I QUANTI COST I COST	TOTAL!   UNIT   COST   QUANT! COST	TOTAL
		1 1,000 1	1,000
Justification:			
The Fuel Metering Unit (FMU) Test Stand is necessary to support conversion on The FMU on each engine is substantially different, and requires specialized fare Avition Depot (NADEP) Cherry Point has it as an element of its strategic plan,	The Fuel Metering Unit (FMU) Test Stand is necessary to support conversion of the existing AV-8B Harrier F-406 engines to F-408 engines. The FMU on each engine is substantially different, and requires specialized facilitazation. The AV-8B is a core weapon system, and Naval Avition Depot (NADEP) Cherry Point has it as an element of its strategic plan, to continue and improve its depot level support.		
NADEP Cherry Point is the U.S. NAVY Designated Overhaul Point (DOP) for t which is the FMU. To perform this workload, a test stand capable of performin	NADEP Cherry Point is the U.S. NAVY Designated Overhaul Point (DOP) for the overhaul and testing of F402-406/408 engine accessories, one of which is the FMU. To perform this workload, a test stand capable of performing the required tests with have to be procured.		
The test stand will be procured to provide test capability for the 408 FMU, which can test stand will augment the depot's capability to test the 406 FMU, which can brequires a great deal of engineering and maintenance support to keep the stan provided the stands, and therefore the stands are in an unfamiliar British configurated the broad the burden on the current 406 FMU, which should also re	The test stand will be procured to provide test capability for the 408 FMU in particular, since the depot currently has no capability to perform the test. Also, the test stand will augment the depot's capability to test the 406 FMU, which can be tested on an existing test stand. However, that test stand is very unreliable. It requires a great deal of engineering and maintenance support to keep the stand running. The problems are complicated by the fact that Dowly, a United Kingdom company, provided the stands, and therefore the stands are in an unfamiliar British configuration. By procuring a new stand, the depot will have the capability to test the 408 FMU and lessen the burden on the current 406 FMU, which should also reduce the amount of maintenance expended on the 406 FMU test stand.		
e purpose of this project is to provide the Accessorie: 6 FMU testing process, and to reduce direct and indir	The purpose of this project is to provide the Accessories Branch with the capability to test the 408 FMU, to enhance and increase the productivity of the existing 406 FMU testing process, and to reduce direct and indirect labor and material costs associated with testing of hydraulic components and accessories.		
ie Cost Benelit Analysis has been performed with an:	The Cost Benefit Analysis has been performed with an: Average annual savings: \$326,553 starting in FY 98 Payback period: 2.3 years Rate of Return: 33%		

		CAPI	ITAL PUR (Doll:	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	JUSTIFIC usands)	CATION							A. FY-1996/1997 BIENNIAL I BUDGET	96/1997 B	ENNIAL
I B. Component/Business Area I Navy/Depot Maintenance/Aviation Depot			<b>-</b> -	I C. Line I NEL000;	Vo. & Iten XN CASS	C. Line No. & Item Description NELOOOXN CASS STATION E	G. Line No. & Item Description NEL000XN CASS STATION EQUIPMENT	ENT					D. Activity Identification	/ Identifica	ation
								1			FY 1996	<u></u>		FY 1997	
ELEMENTS OF COST	QUANT	COST	NIT I TOTALI OST I COST I	QUANT	COST	I UNIT I TOTALI	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I OUANTI COST I CUANTI COST I	I UNIT I TOTALI	TOTAL	QUANT	COST	UNIT   TOTAL   COST   COST	QUANTI	I UNIT I TOTAL	TOTAL COST
FEL0000XN CHERRY POINT		:						T	T	] <del>-</del> -	1,101,1 1,101,1	1,101,1	4.0	VARI	8,518
I CELOOOOXN NORTH ISLAND										<u></u> ਜ	VAR	VAR   3,989		VAR	13,653
TOTAL							_	_	_	4	41 VARI 5,0901 14	VAR 1 5,090 I	14	VAR	14 I VARI 27,773 I

Justification

varying test requirements (e.g. electro-optical, radio frequency, laser, infrared, inertial guidance, etc.) and will also allow modification to meet the demands of future technologies. no alternative means of support. Without CASS stations at the NADEPs avionics component workload and aircraft SDLM concurrent repair will not be executable significantly is planned for NADEPs utilizing CASS. Many of the avionics systems scheduled for CASS are new development programs sets developed only for CASS. There are impacting readiness and pipeline assets. The Consolidated Automated Support System (CASS) design incorporate easily reconfigurable modules which can address response to lieet concerns regarding serious deliciencies in existing ATE and recommendations of an extensive 1976 SECNAV study on test equipment. The CASS program is part of the Navy's long range plan to replace existing aging testers. Depot Level support for the F/A-18, F-14, S-3B, and P-3, as well as core avionics, This request results from the design and development of modularly constructed Automated Test Equipment (ATE). The development program was executed in

different weapon systems, while peculiar ATE tests only one weapon system. CASS represents an approach to testing which consolidates the numbers and types of eventually replace the existing testers which includes both common and peculiar ATE. Common ATE has the capability to test electronic assemblies from many configurations optimized to the particular application. These can range from multiple rack-mounted configurations. All share common assets and software and allow Test Program Set transportability. The four rack-mount configurations include a hybrid tester, RF configuration, Electro Optic configuration and testers used to implement electronics support. CASS has a standard, yet open-ended system architecture that uses a set of standard test modules from which different configurations are composed to meet specific user test requirements. Only the number of test modules and their collective packaging change to CASS is the Navy's latest state-of-the-art avionics automated test equipment to be used to test present and future complex weapons system. CASS will adapt to different user needs. Utilizing the CASS architecture, low-level modules, and a distributed computing systems, it is possible to produce CASS communication/navigation/identification (CNI) configuration.

The CASS program will increase weapon system material readiness, reduce life cycle costs through standardization, improve tester sustainability at depot and throughput capability, reduce spare parts and personnel training requirements, and significantly reduce the space required for avionics testing aboard space intermediate maintenance levels, and provide Navy-wide test capability for existing and future avionics systems. CASS will increase repair facility critical aircraft carriers

B. Component/Business Area Navy/Depot Maintenance/Aviation Depot	(Dollars in Thousands)		_	BUDGET	10 /ee	A. FY 1996/1997 BIENNIAL BUDGET
	I C. Line No. & Ilem Description I NES0000 TOTAL NON-ADP EQUIPMENT (Less than \$500,000)	(000	†=-·	D. Activity Identification	fentificat	5
		FY 1996	<del> </del>	FY	FY 1997	
ELEMENTS OF COST	I QUANTI COST I COST I COST I COST I COST I COST I QUANTI	COST	TOTALI	QUANTI CC	UNIT I	TOTAL
CHERRY POINT JACKSONVILLE NORTH ISLAND			1,069 2,775 1,918	<u> </u>	†·	1,294 650 1,480
TOTAL		-	5,762	<del>-</del> -	<del>-</del>	3,424
See Attached Project Listing.						

### CAPITAL PURCHASES JUSTIFICATION NAVAL AVIATION DEPOTS ATTACHMENT FOR 9B EXHIBIT DOD NON-ADP EQUIPMENT (Less than \$500

#### NES0000 NON-ADP EQUIPMENT (Less than \$500,000) (\$ IN THOUSANDS)

LINE #	DESCRIPTION	FY 1996 I	FY 1997
F ES 0000	N Capital Equipment Installation Costs	408	394
F ES COOSC	N Pack Aluminide Process Equipment	<b>33</b> 6	
F ES L012B	P Automated Work In Process Storage and Retrieval System	250	
F ES A013A	R Surface Grinder Replacement	75	
F ES 0000	R Miscellaneous Capital Equipment \$50K to \$500K		350
F ES DOO9C	N Hydraulic Motor Starter Test Stand		250
F ES 000XA	R Test Cell Six Modernization		150
F ES OOXXA	R Test Cell One Upgrade		150
	CHERRY PT NON-ADP EQUIPMENT	1,069	1,294
E ES 00025A	R Laser Wire Marker	487	
E ES 00019A	R Workstands for P-3, HGR 868	450	
E ES 00004C	N Optical Stabilizer Mini Console	360	
E ES 000S	N Miscellaneous Capital Equipment \$25K to \$50K	358	
E ES 000S	N In-House Installations	285	200
E ES 00008AE	R Bearing Cleaning Line	260	
E ES 00017C	N Thermal Spray System	250	
E ES 00015E	R IPA Vapor Dryer	175	
E ES 00026	R Magnetic Particle Inspection	150	
E ES 00021C	N Antenna Analyzer		400
E ES 00011	R Pulse Generating System		50
	JAXV NON-ADP EQUIPMENT	2,775	650
C ES 00289A	R Vertical Machining Center - 200*	465	
C ES 00291A	R Equip Installations	389	
C ES 00290A	R \$50K-\$500K Equipment	300	
C ES 00286A	R Small Vertical Grinder	288	
C ES 00274A	R Vertical Machining Center - 75"	235	
C ES 00294A	R Vector Network Analy	140	
C ES 00287A	R IPA Clean/Degr Sys	101	
C ES 00303A	R CNC Lathe - 18"		489
C ES 00304A	R Large Vertical Grinder		460
C ES 00305A	R Large CNC Cylindrical Grinder		345
C ES 00306A	R \$50K-\$500K Equipment		100
C ES 00307A	R Equip Installations		86
	NORTH IL NON-ADP EQUIPMENT	1,918	1,480

C. Lie No. & Lien Description   C. Lie No. & Lien Description   D. Activity Identification   D. Activ			4	(Dollars in Thousands)	sands)	N 0							A. FY 1996/1997 BIENNIAL BUDGET	96/1997 I	MENNIAL
OF COST   QUANT  TOTAL   UNIT   UNIT   TOTAL   UNIT   UNIT   TOTAL   UNIT	B. Component/Business Area Navy/Depot Maintenance/Aviation Depot			C. Line No NMC0000	o. & Item	Descriptik MINOR C	onstru	ICTION (	300,000	and Less			D. Activity	y Identifik	ation
UNIT   TOTAL   UNIT   UNIT   TOTAL   UNIT   TOTAL   UNIT   UNIT   TOTAL   UNIT   TOTAL   UNIT   UNI											FY 1996	† <b>-</b> -		FY 1997	
yect Listing.	ELEMENTS OF COST	I QUANTI COST	TOTAL	!		TOTAL I COST I	QUANTI	UNIT	TOTAL	QUANT	COST	TOTAL COST	QUANTI		TOTAL
3 Project Listing.	CHERRY POINT JACKSONVILLE NORTH ISLAND				<del>-</del>		<u> </u>					1,405			1,600 776 837
See Attached Project Listing.	TOTAL			_							_	3,839	_		3,213
	See Attached Project Listing.												•		

## CAPITAL PURCHASES JUSTIFICATION NAVAL AVIATION DEPOTS ATTACHMENT FOR 9B EXHIBIT NMC00000 MINOR CONSTRUCTION (\$300,000 and Less) (\$ IN THOUSANDS)

LINE #/	DESCRIPTION	FY 1996 I	FY 1997
F MC CE19-93	Construct PACK Process Areas, B4225	211	
F MC CR53-94	Alt/Rep to Makeup and Exhaust Air Syst, B4035	175	
F MC C40-93	Construct Stairway and Catwalks, B4225	170	
F MC C29-93	Construct Paint Booth Drying Room, B1798	163	
F MC C73-94	Alterations to Aircraft Cleaning Facility, B4187	150	
F MC CE63-93A	Upgrade of Electrical Util, B4172	140	
F MC C52-94	Alt for Access Staging, Plating Shop, B4035	106	
F MC C32-91A	Construct Extension to Haz/Waste Shelter	100	
F MC C45-94	Alterations to Roll Up Doors, B133	90	
F MC C69-94	Construct Lightning Arrestor Sys, Mezz. F, B137	50	
F MC C57-94	Alter to Dust Collectors For PMB, Shop 93111, B137	50	
F MC C90-93	Alterations for HVAC, Shop 94403, B137		250
F MC EC36-94	Install & Alt to In-House Hydraulic Sys, B137		200
F MC C36-92	Alterations to Chilled Water System, B188		190
F MC CR63-90	Alterations/Repairs Pneumatics Branch Shops, B137		180
F MC C20-91	Pave Parking Area Adjacent to B4032		180
F MC CR47-90	Alt/w Rprs to Security Perimeter Fence		135
F MC RC75-94	Repairs & Alterations to HVAC, B163		100
F MC CR06-92	Const Storm Drain/Repr Asphalt - Taylor/Harrison Drive		100
F MC RC07-95	Repairs & Alterations to Exits & Emergency Lights		55
F MC CR48-94	Alt/Rep to Admin. Areas, Front Office Area, B137		55
F MC CR25-93	Alterations and Repairs to Lobby, B133		55
F MC C29-91	Construct Miscellaneous Sidewalks		50
F MC C87-93	Construction of 65600 Storage Facility		50
	CHERRY PT MINOR CONSTRUCTION	1,405	1,600
E MC 000S	Miscellaneous Small Jobs	366	300
E MC 00007	Repair and Alter Component Paint Shop, B101	300	
E MC 00005	Alter and Repair Bearing Shop, B101	300	
E MC 00022	Support Equipment Warehouse	300	
E MC 000S	In-House Construction	230	200
E MC 00003	Bulk LN2 Tank/Distribution System, B101U	150	
E MC 00018	Flat Cable Shop Expansion		276
	JAXV MINOR CONSTRUCTION	1,646	776
C MC 00281A	Misc Mod Proj 50-500K	438	
C MC 00295A	Modernize Lighting	200	
C MC 00282A	Gen Test Stand Facility	150	
C MC 00276A	Install Electrical Substation		250
C MC 00301A	Install Electrical Substation		250
C MC 00278A	Construct Fire Wall		200
C MC 00297A	Misc Mod Proj 50-300K		137
	NORTH IL MINOR CONSTRUCTION	788	837

		CAPIL	AL PUR( (Dolla	SAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	JUSTIFI usands)	CATION							I A. FY 1996 I BUDGET	A. FY 1996/1997 BIENNIAL BUDGET	ENNIAL
B. Component/Business Area Navy/Depot Maintenance/Aviation Depot				C. Line DEPOT	C. Line No. & Item Description DEPOT MAINTENANCE STAI	n Descrip VANCE S	C. Line No. & Item Description DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) ADPE EQUIPMENT	D SYSTE	M (DMSS)	ADPE E	QUIPMEN		D. Activit	D. Activity Identification	ation
					! ! !		ļ 	FY 1995	5		FY 1996			FY 1997	
ELEMENTS OF COST	I UNIT I TOTALI I UNIT	COST	TOTAL COST	QUANTI	COST		TOTAL! I	UNIT	!	TOTAL   COST   QUANT	COST		TOTAL! I	UNIT I	TOTAL
HARDWARE:MID TIER/USER LEVEL FKL0000JP CHERRY POINT EKL0000JP JACKSONVILLE CKL0000JP NORTH ISLAND		<b>-</b> -				<u> </u>	<u></u>	V V AR AR AR AR AR AR AR AR AR AR AR AR AR	205 1,478 176		834	834		VAR	7007
TOTAL	_	-	_	_		<u> </u>	-	VAR	1,859	=	VAR	834	T =	VAR	780
Justification:  These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics Systems Center to NADEP maintenance depots.  During the recent budget review, the responsibility for acquisition of hardware was transferred from the JLSC to the Military Services.  The Depot Maintenance Standard System (DMSS) was created in response to the DoD initiative to standardize logistics systems across DoD and the Military Services' related need for a more capable information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AIS development efforts and commercially available systems. These efforts have sustained the modemize the platforms and hardware represented by this submittal.	he Depot Mair nnsibility for ac (DMSS) was of ms technical in esses of the d available syst	ntenance quisition created nfrastruc epots, ir	e Standa n of hard in respor ture in th nvestigat hese effe	urd Systen ware was nse to the heir depo ed altern onts have	n (DMSS transferr DoD init is. Over ative mail sustained	being d red from 1 liative to s the past I ntenance	nance Standard System (DMSS) being developed by the Joint Logistics Sistition of hardware was transferred from the JLSC to the Military Services. aated in response to the DoD initiative to standardize logistics systems acrastructure in their depots. Over the past two years, the Joint Logistics Systots, investigated alternative maintenance management concepts and revinns. These efforts have sustained the need to modernize the platforms and	by the Joi to the Milit e logistics the Joint nent conce	nt Logistic ary Servic systems Logistics epts and r	ss System ses. across Do Systems eviewed t	s Center ( D and the Center (JI he Servic	o NADEF  Military SC), wor	mainten Services' King with y environny this sub	ance depo related the nent, depo	ج خ
DMSS will provide the Services a revolutionary step forwar strides in business process improvement. Benefits will be enhanced through the process improvements delivered by include; Reduced inventories through improved planning a elimination of non value-added activity; shorter cycle times more complete asset visibility; once implementation is com	nary step form Benefits will b ruts delivered t oved planning orter cycle time	rard in further realization by DMS; and traces and traces through the realization by the	Inctional ed in two S applics cking; reghter gh better and lega	capability primary ations to sequenced later appening to sequenced later appening to applice to applice applices.	y and aut areas: bi support th oor throug g and mai	tomation, usiness r. ne Depot gh better nagemen	d in functional capability and automation, including a systems infrastructure upon which to make significant realized in two primary areas: business performance and information systems costs. Business performance will be DMSS applications to support the Depot Maintenance Improved Functional Baseline (IFB). These improvements nd tracking: reduced abor through better resource and work planning; reduced overhead through automation and the through better planning and management information to control operations; improved schedule performance through plete and leadery applications are reduced or eliminated. ADP costs will come down markedule.	d in functional capability and automation, including a systems infrastructure upon which to ma realized in two primary areas: business performance and information systems costs. Busines DMSS applications to support the Depot Maintenance Improved Functional Baseline (IFB). T nd tracking; reduced labor through better resource and work planning; reduced overhead through better planning and management information to control operations; improved schedule and leady abolications are reduced or eliminated. ADP costs will come down markedto.	s infrastrur ormation s red Functi olanning; u trol operati	cture upor systems or ional Bass reduced or ions; imp	which to osts. Bus eline (IFB) werhead I	make siginess per iness per in These hrough au edule per inese	jnificant formance improvem utomation formance	will be ents and the through	

I is a critical contribution toward improving mission readiness in a downsizing environment. As the DoD weapon systems continue to age, reductions to the workforce continue and the I number of depots are reduced, efficient and effective organic repair capability is of increasingly growing importance to DoD in maintaining weapon systems combat readiness. In order to meet this demand, the depot community needs to dramatically strengthen its business processes and the associated information infrastructure (hardware).

Without this investment, needed improvements to the depot business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities

	(Dollars in Thousands)	A. FY 1996/1997 BIENNIAL BUDGET
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/	I C. Line No. & Item Description t CKL00285BP SDAE/ASKARS TANDEM	D. Activity Identification NORTH ISLAND
	FY 1996	FY 1997
ELEMENTS OF COST	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I ONIT I TOTALI I TOTALI I TOTALI I TOTALI I TOTALI I TOTALI I TOTALI I COST I	I UNIT I TOTAL QUANTI COST I COST
Justification:	1001 10	
Naval Avlation Depot North Islands long range plan Is to replace older eq processors, consumes large amounts of energy to operate, and requires more and faster capabilities, lewer processors, much smaller floor space	an is to replace older equipment which is large, requires a large amount of floor space, contains multiple o operate, and requires a large support staff. Replacement will be by state-of-the-art computer with uch smaller floor space requirements, substantial reduction in energy consumption, and reduced support staff.	
The purpose of this items is to replace the existing corporate Tandem TX maintenance, lower utilities costs, and has a smaller tootprint.	g corporate Tandem TXP system with the newer CLX-R system. The CLX-R model Is faster, requires less lier tootprint.	
The existing Tandem Model TXP system is obsole frequent.	The existing Tandem Model TXP system is obsolete. Cost of software and hardware is increasing. Failure rate of equipment is more frequent.	
Replacement of Tandem system would reduce software and hardware m less computer room floor space. The system will be capable of providing	offware and hardware maintenance costs, has less electrical power consumption, and requires be capable of providing information from an OPEN system environment.	
System downtime will be more frequent if equipment it not acquired. The components program at the NADEP.	ient it not acquired. The system downtime will Impact MCAPP, ASKARS and SPLICE users supporting the aircraft and	
\ Cost Benefit Analysis has been performed with a	A Cost Benefit Analysis has been performed with an: Average Annual Savings: \$168,201 starting in June 96 Payback Period: 3.9 years Rate of Return: 24.0%	

		BUDGET
B. Component/Business Area/Date Navy/Depot Maintenance/Avlation Depot/	I C. Line No. & Item Description I CKL00284BP VAX 1 REPLACEMENT	D. Activity Identification NORTH ISLAND
	1 FY 1996	FY 1997
ELEMENTS OF COST	I QUANTI COST I	TOTAL I UNIT I TOTAL COST I COST I COST
		-
Justification:		
The replacement computer system will support 256 users, has 128 mega bytes of mem 20 giga bytes of disk space, and CPU speeds of 100 MIPS (Millon Instructions per Sec Resource Management requirements and any future requirements that may be needed.	The replacement computer system will support 256 users, has 128 mega bytes of memory, provide 2-3 second response time, has 20 giga bytes of disk space, and CPU speeds of 100 MIPS (Mittion Instructions) and provide excellent support for existing Information Resource Management requirements and any future requirements that may be needed.	
The VAX1 Digital Equipment Corporation 11/780 computer system is obsolets and application software. It cannot meet increased demand for Belational database ca Application speeds are virtually unusable. Because of the age of the systems, har downtimes are increasing. Because of the ochnology, facilities costs are high.	The VAX1 Digital Equipment Corporation 11/780 computer system is obsolets and cannot provide adequate system resources for modem application software. It cannot meet increased demand for Relational database capability. It represent obsolete technology and is extremely slow. Application speeds are virtually unusable. Because of the age of the systems, hardware maintenance is becoming increasingly more difficult and costly and downtimes are increasing. Because of the old technology, facilities costs are high.	
Replacing this system will provide existing applications with the latest habe fully provided for in terms of performance capacity. Open System can networking protocol will be provided as part of the system. Maintenance	Replacing this system will provide existing applications with the latest hardwere and operating system technology. Applications will be fully provided for in terms of performance capacity. Open System capability such as UNIX operating system, NFS diskrite sharing, TCP/IP communications and networking protocol will be provided as part of the system. Maintenance and facilities costs will be significantly lowered.	
e 11/780 (VAX1) represents obsolete technologicalities to Increase if equipment is not acquir	The 11/780 (VAX1) represents obsolete technology. It will continue to requira high maintenance and facility costs and their downtimes will continue to increase if equipment is not acquired. The slow performance will continue to make it cost prohibitive rather than cost beneficial.	
A Cost Benefit Analysis has been performed with an: Average Annual S	an: Average Annual Savings: \$129,869 starting in NOV 97 Payback Period: 3.2 years Rate of Retum: 28.9%	

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I C. Line No. & Item Dascr I CSL002928P RELATION    CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   CSL002928P RELATION   COST   CSCONDELLINE   CSCONDELINE   CSCONDELLINE   CSCONDELLINE   CSCONDELLINE   CSCONDELLINE		(Dollars in Thousands)	A. FY 1996/1997 BIENNIAL   BUDGET
FY 1997	B. Component/Businass Area/Date Navy/Depot Maintenance/Aviation Dapot/	I G. Line No. & Item Dascription I GSL00292BP RELATION DATABASE SOFTWARE	D. Activity Identification NORTH ISLAND
JANTI COSTI		FY 1996	FY 1997
usuification:  a of the shelf, commercially available, industry provan ralational database software package. The purpose of the formation. This software will work from the shelf, commercially available, industry provan ralational database software package. The purpose of the formation. This software will work cross that varied compoulting platform compatibility), assy-to-use means of accessing NADEP business sensitive information. This software will work cross that varied computing platform of the NADEP and provide a same like/feel and compatibility for data/finformation roughed in the shelf database software packages. Thay cover platforms that range from desk top a restoral computant of the part of NADEP personnel to integrate data/finformation for our rapidly changing information man a sustain considerable electron one system. Our state on the part of NADEP personnel to integrate data/finformation roughs if we have to constaintly build bridges to ket data from one system to another.  It databases software is not acquired there is a greater risk of providing haccurate information about in horages of the acquired there is a greater risk of providing haccurate information about the NADEP. The Information contained in our date asset and the Abbility of the NADEP and the ability of the command to be seen as a competitive component of the Depot Maintenance arena.  Cost Benafit Analysis has been performed with an: Average Annual Savkrçs: \$99,858 starting in July 96. Payback Period: 2.2 years. Rate of Healthm: 39.954	ELEMENTS OF COST	TOTAL    UNIT   TOTAL    UNIT   TOTAL    UNIT   COST   QUANT  COST   COST   QUANT  COST	UNIT I
his is an off-the-shelf, commercially availabbe, industry provan ralational database software package. The purpose of the off-ware is to provide an open (multi-platform compatibility), easy-to-use means of accessing NADEP business sensitive information. This software will work cross the varied computing platform compatibility), easy-to-use means of accessing NADEP business sensitive information. This software will work cross the varied computer of the NADEP and provide a same likefleel and compatibility for data/information storage and retrieval.  urrently we have a mixture of unreleted off-the-shelf database software packages. Thay covar platforms that range from desk top assign computer maintrames. The fack of an easy data inferace/axchange and a pool of knowledgeable experts on each environment is such good on the part of NADEP personnel to integrate data/information for our rapidly changing information environment. Our adultionmation requirements are becoming more and more complex. We can not quickly respond to information calls if we have to constantly build bridges to k data from one system to another.  In database software is not acquired there is a greater risk of providing inaccurate information about the NADEP to people that expressed data availability. Inchesses the control of the value of the uniterestical to the vability of the NADEP and the ability of the command to be seen as a competitive component of the Depot Maintenance arena.  Cost Benafit Analysis has been performed with an: Average Annual Savings; \$599,658 starting in Jun 96. Payback Period: 2.2 years. Plate of Return.		_	-
his is an off-the-shelf, commercially availabbe, Industry provan ralational database software package. The purpose of the office and open (multi-platform compatibility), easy-to-use means of accessing NADEP business sensitive information. This software will work cross tha varied computing platform of the NADEP and provide a same like/field and compatibility for datafinformation storage and retrieval.  urrently we have a mixture of unreleted off-the-shelf database software packages. Thay covar platforms that range from desk top essonbular mainframes. The lack of an easy data interface/axchange and a pool of knowledgeable effort to be exarted on the part of NADEP personnel to integrate datafinformation for our rapidly changing information environment is austing more and more complex. We can not quickly respond to information calls if we have to constantly build bridges to kear datafinformation requirements are becoming more and more complex. We can not quickly respond to information calls if we have to constantly build bridges to herefits consist of the following: reduced turn-around-tima (TAT) between raquesting data and receiving information, increased data accuracy, improved security, extending the database software is not acquired there is a greater risk of providing haccurate information about the NADEP to people that remaining the database software is not acquired there is a greater risk of providing haccurate information about the NADEP. The Information contained in our data asses are crucial to the vabbility of the NADEP and the ability of the command to be seen as a compensate component of the Depot Maintenance arena.  Cost Benefit Analysis has been performed with an: Average Annual Savings: \$99,858 starting in Jun 96 Payback Period: 2.2 years Rate of Return: 38,98,878	Justification:		
urrently we have a mixture of unrelated off-the-shelt database software packages. Thay cover platforms that range from desk top ersonal computar mainfranes. The fack of an easy data hiterface/axchange and a pool of knowledgeable experts on each environment is austing mainfranes. The fack of an easy data hiterface/axchange and a pool of knowledgeable experts on each environment. Our such fact to be exarted on the part of NADEP personnel to integrate data/information for our rapidly changing information environment. Our staffinformation requirements are becoming more and more complex. We can not quickly respond to information calls if we have to constantly build bridges to keen all at a from one system to another.  In data from one system to another.  In the defect of the following: reduced turn-around-time (TAT) between raquesting data and receiving information, increased data accuracy, improved security, extending the life and availability of in-house technical knowledge/axpertise, enhancement of the NADEP's competitive edge and an increase in data availability.  In the database software is not acquired there is a greater risk of providing haccurate information about the NADEP to people that making decisions about workload, finances, personnel levels, and other important areas that affect the antire NADEP. The information contained in our data asses are crucial to the viability of the NADEP and the ability of the command to be seen as a competitive component of the Depot Maintenance arena.  Cost Benafit Analysis has been performed with an: Average Annual Saving: \$99,858 starting in Jun 96 Payback Period: 2.2 years Rate of Return: 39.9%	his is an off the shelf, commercially available, ind oftware is to provide an open (multi-platform compress tha varied computing platform of the NADE!	ustry provan ralational database software package. The purpose of the particulary, easy-to-use means of accessing NADEP business sensitive information. This software will work P and provide a same likefieel and compatibility for data/information storage and retrieval.	
enefits consist of the following: reduced turn-around-tima (TAT) between raquesting data and receiving information, increased data accuracy, improved security, extending to line and availability of inchouse technical knowledge/axpertise, enhancement of the NADEP's competitive edge and an increase in data availability.  The database software is not acquired there is a greater risk of providing inaccurate information about the NADEP to people that remaining decisions about workload, finances, personnel levals, and other important areas that affect the antire NADEP. The information contained in our data ases are crucial to the viability of the ability of the command to be seen as a competitive component of the Depot Maintenance arena.  Cost Benafit Analysis has been performed with an: Average Annual Savings: \$99,858 starting in Jun 96 Payback Period: 2.2 years Rate of Return: 39.9%	Currently we have a mixture of unrelated off-the-sh personal computars to large computar mainframes, causing considerable effort to be exarted on the pa data/information requiremants are becoming more link data from one system to another.	telf database software packages. Thay covar platforms that range from desk top.  The fack of an easy data interface/axchange and a pool of knowledgeable experts on each environment is and INADEP personnel to integrate data/information for our rapidly changing information environmant. Our and mora complex. We can not quickly respond to information calls if we have to constantly build bridges to	
NADEP to people that anitre NADEP. The Information c componant of tha Depot Maintens Payback Period: 2.2 years	enefits consist of the following: reduced turn-arou ie life and availability of In-house technical knowle	und-tima (TAT) between raquesting data and receiving information, increased data accuracy, improved security, exten edge/axpertise, enhancement of tha NADEP's competitive edge and an increase in data availability.	5
Payback Period: 2.2 years	the database software is not acquired there is a gre making decisions about workload, finances, per ases are crucial to the vlability of the NADEP and	greater risk of providing inaccurate information about the NADEP to people that reconding in our data reconding the important areas that affect the antire NADEP. The information contained in our data the ability of the command to be seen as a competitive component of tha Depot Maintenance arens.	
	Cost Benafit Analysis has been performed with a	Payback Period: 2.2 years	

	(Dollars in Thousands)	A. FY 1996/1997 BIENNIAL BUDGET
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/	I C. Line No. & item Description I CKL0333BP UNIX OPEN SERVER	D. Activity Identification NORTH ISLAND
	FY 1996	FY 1997
ELEMENTS OF COST	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I COST	TOTAL I UNIT I TOTAL COST I QUANTI COST I COST
Justification:		11 4751
Two existing Digital Equipment Corporetion (DEC adequate system resources for advences in application speeds are virtually unusable. Becaus of the old technology, facilities costs are high. The DEC 7000 AXP server has the capability to n computing demands increase. This provides inveringulation (I/O) capability. This allows it to servi	Two existing Digital Equipment Corporetion (DEC) VAX 11/780 computer systems ere obsolete and can no tonger adequetely meet current user requirements. The systems cannot provide adequate system resources for advences in application software end they cannot meet increased demand for Open System capability. They represent obsolete technology and ere extremely stow. Application speeds ere virtually unusable. Because of the ege of the systems, hardware meintenance is becoming increasingly more difficult and downtimes are high.  The DEC 7000 AXP server has the capability to run severel different opereting systems including the UNIX open system. Its memory and CPU performance can be increased "modularly" es NADEP computing demands increase. This provides investment protection es well es excellent performance. The DEC 7000 herdware can have as many as 6 processor boards and e huge data input/output (I/O) capability. This allows it to service ell of the existing applications as well as any future applications.	oms cannot provide gy and ere extremely sic ire increasing. Also, bec ire increasing. Also, bec assed "modularly" es NAl s and e huge data
A Cost Benetit Analysis hes been performed with	A Cost Benelit Analysis hes been performed with an: Average annual savings: \$129,869 sterling FY-97 Payback: 3.4 Years Rate of return: 27.3%	

	CAPILAL PUNCHASES JUSTIFICATION (Dollars in Thousands)	A. FY 1996/1997 BIENNIAL BUDGET	NNIA
<ul> <li>B. Component/Business Area/Date</li> <li>Navy/Depot Meintenance/Avietion Depot/</li> </ul>	I C. Line No. & Item Description I CKL00299BP ROHR TANDEM UPGRADE	D. Activity Identification NORTH ISLAND	Lo.
	FY 1996	FY 1997	
ELEMENTS OF COST	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I OUANTI COST I COST	TOTAL!   UNIT   T	TOTAL
		1 1001	<b>5</b>
Justilication:	Justilication:		
The Tendem Model CLX:R system supporting matcher ROHR stacker system.	The Tendern Model CLX-R system supporting material handling functions does not have sufficient capacity to support the Integration of the ROHR stacker system.		
Benefits include reduced costs by consolideting the use of the Tandem system to Include includes the system capability to provide informetion from an OPEN system environment.	Benefits include reduced costs by consolideting the use of the Tandem system to Include supporting the ROHR stacker system. Significant benefits also includes the system capability to provide information from an OPEN system environment.		
If upgrade is not acquired, current materiel hendling system performe support the integretion of the ROHR stecker system with the current	If upgrade is not acquired, current materiel hendling system performence will be degreded end users will experience slower response time. The upgrade is needed to support the integretion of the ROHR stecker system with the current meterial handling system.		
Cost Benelit Analysis has been performed with a	A Cost Benelit Analysis has been performed with en: Average Annual Savings: \$36,775 sterting in AUG 97 Payback Period: 2.4 yeers Rate of Return: 36.8%		

	(Dollars in Thousands)	,	I A. FY 1996/1997 BIENNIAL	/1997 BII	ENNIA
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/	I C. Line No. & Item Description f EKL5001N EDMICS		I D. Activity Identification	dentificat	Ition
	FY 1995	FY 1996		FY 1997	
ELEMENTS OF COST	I UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I OUANTI COST I COST I QUANTI	UNIT   TOTAL COST   COST	QUANTI	UNIT 1 COST	TOTAL
		1717 1717	<del> </del>	<del> </del>	
Justilication: 					
The Engineering Data Management Information and Co drawing repository utilizing digital imaging techniques, or resources and Local Area Network (LAN) technologies part of the NAVAIR Infrastructure Modernization ettort.	The Engineering Data Management Information and Control System (EDMICS) is an automated, state-of-the-art engineering drawing techniques, optical/digital mass storage, conventional (ADPEMIS) computer resources and Local Area Network (LAN) technologies. EDMICS is a DoN Computer Aided Logistics Support (CALS) initiative and part of the NAVAIR Infrastructure Modernization ettori.				
The purpose ol this project is to provide the NADEPs with the ability of compliant digital format and to implement the EDMICS compatible aut	The purpose of this project is to provide the NADEPs with the ability of storing large amounts of technical data in the CALS compatible automated Engineering Drawing Support Activity.	•			
DMICS will Improve repository management by reducipit, storage, retrieval and distribution of drawing in lete, or change data as required. There will be increary by providing the user with the latest drawing	EDMICS will improve repository management by reducing or eliminating labor intensive functions associated with the receipt, storage, retrieval and distribution of drawing images. The system will permit authorized users the ability to add, delete, or change data as required. There will be increased efficiency in the processing of drawing requests and improved accuracy by providing the user with the latest drawing revision. Aperture card production costs will also be reduced.				
A Cost benefit analysis has been performed for the review of economic Indicators.	iew of economic Indicators.				
Average annual savings: starting FY 96 \$630,477	Payback period: 2.5 years Rate of return: 31.5%				

B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot I CLUDe Mo. 8 Item Description I UNIT 1707AL		(Dollars in Thousands)	BUDGET	BUDGET	
TOTAL   UNIT   COST   QUANT  COST   200           and received and	Component/Business Area/Date vy/Depot Maintenance/Aviation Depot/	I C. Line No. & Item Description I CKL00288CN DEFENSE MESSAGE SYSTEM UPGRADE	D. Acti	ivity Identific	ation
TOTAL   UNIT   COST   QUANT  COST   200           and received and		FY 1996	<u> </u>	FY 1997	
Listification:  Listification:	ELEMENTS OF COST	UNIT I TOTALI I UNIT I TOTALI I UNIT I TOTALI I UNIT I COST I COST I QUANTI COST I QUANTI COST I	FAL I ST I QUAN		TOTAL
elense Message System (DMS) compilance requires X.400 and X.500 capability. X.400 is an addressing acheme that provides common addressing for users.  Sot is a global directory service to locate users. Both of these require software and communications access to X.400 and X.500 services. In order for seasages to be delivered to the desktop, adequate disk storage is required to hold messages for the required period of time. Software able to route and strain the services is also required as well as the means to import them into the system. All of this has to interoperate with the local EMail system, hich itself, needs to migrate to DMS compilance.  Instances are sent to this commands via AUTODIN and the Message Centers (which are gradually being phased out). Electronic mail especially system, hich itself, needs to migrate to DMS compilance.  Instances are sent to this commands via AUTODIN and the Message Centers (which are gradually being phased out). Electronic mail especially system, one of these can interface with each other. There is no way of getting messages and EMail delivered to the desktop computers.  Instances are sent to individuals from outside communicate with the outside world and other commands. Messages and files would be both sent and received and would be easy to locate these remote users.  Instance is a sent to desktop in electronic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.  Upgrade is not acquired, this NADEP will not meet mandatory compliance with the Defense Message System.			200 1	-	
elense Message System (DMS) compilance requires X.400 and X.500 capability. X.400 is an addressing echeme that provides common addressing for users.  500 is a global directory service to locate users. Both oil these require software and communications access to X.400 and X.500 services. In order for ressages to be delivered to the desktop, adequate disk storage is required to hold messages for the required period of time. Software able to route and issuance is required as well as the means to import them into the system. All of this has to interoperate with the local EMail system, hich itself, needs to migrate to DMS compilance.  Jessages are sent to this commands via AUTODIN and the Message Centers (which are gradually being phased out). Electronic mail capabilities. lessages are sent to individuals from outside commands via the Defense Data Network (DDN). Local EMail systems provide local electronic mail capabilities. energits include the following: The local EMail system would communicate with the outside world and other commands. Messages and files would be both sent and received and would be easy to locate these remote users.  Jessages would be delivered to the desktop in electronic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.  Jessages would be delivered to the desktop in electronic form, eliminating the Defense Message System.	stification:				
lessages are sent to this commands via AUTODIN and the Message Centers (which are gradually being phased out). Electronic mail capabilities.  I consider to individuals from outside commands via the Defense Data Network (DDN). Local EMail systems provide local electronic mail capabilities.  I conserve these can interface with each other. There is no way of getting messages and EMail delivered to the desktop computers.  I he local EMail system would communicate with the outside world and other commands. Messages and files would be both sent and received and would be easy to locate these remote users.  I essages would be delivered to the desktop in electronic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.  I pagrade is not acquired, this NADEP will not meet mandatory compliance with the Defense Message System.	fense Message System (DMS) compliance requir 500 is a global directory service to locate users. Essages to be delivered to the desktop, adequate tribute these messages is also required as well as ich itself, needs to migrate to DMS compliance.	ss X.400 and X.500 capability. X.400 is an addressing echeme that provides common addressing for users, oth of these require software and communications access to X.400 and X.500 services. In order for disk storage is required to hold messages for the required period of time. Software able to route and a the means to import them into the system. All of this has to interoperate with the local EMall system,			
enefits Include the following: The local EMail system would communicate with the outside world and other commands. Messages and files would be both sent and received and would be easy to locate these remote users.  In the seasy to locate these remote users.  In the desired to the desktop in electronic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.  In the desired is not acquired, this NADEP will not meet mandatory compliance with the Defense Message System.	ssages are sent to this commands via AUTODIN issages are sent to individuals from outside comme of these can interface with each other. There	and the Message Centers (which are gradually being phased out). Electronic mail hands via the Defense Data Network (DDN). Local EMail systems provide local electronic mail capabilities. Is no way of getting messages and EMail delivered to the desktop computers.			
upgrade Is not acquired, this NADEP will not meet mandatory compilance with the Defense Message System. stimate Operational Date: Jul 1997	nefits Include the following: The local EMail systerould be easy to locate these remote users. Issages would be delivered to the desktop in elections.	m would communicate with the outside world and other commands. Messages and files would be both sent ar ironic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.	received ar	2	
stimate Operational Date: Jul 1997	pgrade Is not acquired, this NADEP will not meet	mandatory compliance with the Defense Message System.			
	timate Operational Date: Jui 1997				

	(Dollars in Thousands)	A. FY 1996/1997 BIENNIAL BUDGET
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/	I C. Line No. & Item Description I EKL00013CN COMPUTER SYSTEM UPGRADE	D. Activity Identification JACKSONVILLE
	FY 1996	FY 1997
ELEMENTS OF COST	I QUANTI COST I COST I QUANTI COST I COST I QUANTI COST I	TOTALI UNIT I TOTAL COST I QUANTI COST I COST
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_
Justilication:		
This NADEP uses five host computer systems to provide services over The host computer systems are prasently being replaced by a single or up to 1000 users. It is projected, however, that by FY96 the network gr	This NADEP uses five host computer systems to provide services over the ethernet based network to more than 500 users located throughout the NADEP and remote areas. The host computer systems are prasently being replaced by a single computer system. The new system will serve the existing 500 users and provide for network growth up to 1000 users. It is projected, however, that by FY96 the network growth will exceed 1000 users. A hardware upgrade is required to maintain capabilities.	gi
his system upgrade includes one additional cent dditlonal 20 Gigabytes of disk storage with on-lin omputer memory that will allow the system to inte	This system upgrade includes one additional central processing unit (CPU) allowing multiple processors operating simultaneously in a symmatrical configuration; an additional 20 Gigabytes of cisk storage with on-line cache to support increased workload and provide optimum performance to users; and an addition of 256 Megabytes of computer memory that will allow the system to internally process more data without having to swap out to slower extamal devices.	
nts project will maintain network capabilities by p owth up to 1500 users. The present system will	This project will maintain network capabilities by providing the forthcoming host computer system with sufficient resources to serve 1000 network users and allow for growth up to 1500 users. The present system will not provide adequate computer resources for the increasing workload and network growth.	
A Cost Benelit Analysis has been performed with an: Average annual	an: Average annual savings: \$73,067 starting in FY96 Payback period: 1.2 years Rate of retum: 64.1%	

C. Line No. & Hem Description   D. Activity Identification:   C. Line No. & Hem Description   D. Activity Identification:   D. Activity Identification:   C. Line No. & TELECOMMUNICATIONS EQUIPMENT (Lass than \$100,000)   P.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   F.Y 1997   P.Y 1996   P.Y 1997   P.Y 1997   P.Y 1997   P.Y 1996   P.Y 1997	Usiness Area	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CATION							I A. FY 1996/1997 BIENNIAL I BUDGET	96/1997 E ET	SIENNIAL
UNIT TOTAL   UNI	Justification:  CSS002696P Intelligence Software	I C. Line No. & Item I NKT0000 ADP & "	Description TELECOMM	UNICATIC	NS EQUI	PMENT	(Less t	)an \$100,	T ·	D. Activit	y Identific	ation
UNIT   TOTAL   UNIT   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   UNIT   TOTAL   UNIT	OF COST   OUANT  COST   COST   OUANT  COST    TOTAL		<u>-</u> -					FY 1996		<u> </u>	FY 1997	
TOTAL	TOTAL	I TOTAL!	TOTAL COST I O		i — — -	OST   C	MANT	UNIT I		QUANT	UNIT	TOTAL
Justification:  CSS002698P Intelligence Software  Softwa	Justification:								8		<del>-</del>	
FY 1996 FY 1997 99		T -	<del>-</del> -	<u> </u> -	<del>-</del> -	<del>-</del>	T=	66	8			
68				F	1996 FY	. 1997						
		ligence Software		ŀ	8							
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# FY 1995 DBOF Capital Program Reconcilliation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories presented are as follows:

- Explanation for cancellation or deferral and substitution/disposition of related funding a.) Category, of purchase/project name, as noted in the FY 1995 President's Budget b.) Disposition of project: cancellation, deferral and/or substitution concellation or deferral and/or substitution

# FY 1995 DBOF CAPITAL PURCHASES

\$1,200

	₽	₩	\$ 00
,	•		\$1,500
PY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS NAVY (\$ in 000)	<ol> <li>Depot Maintenance - Aviation Depots         <ul> <li>Non-ADP Equipment/High Pressure Compressed Air Storage System</li> <li>Substitution</li> <li>This project was originally planned for execution in FY 1993; however, a MILCON project (P-507) was in construction and temporarily occupied the physical site where the High Pressure Compressed Air Storage System was planned to be located. In order to avoid delay in the MILCON project, the project was moved to the 1995 program. Projects in the lower categories were deferred to the outyears to program this project in 1995.</li> </ul> </li> </ol>	<ul> <li>2. Depot Maintenance - Aviation Depots</li> <li>a. Non-ADP Equipment/Auto Deblade System</li> <li>b. Cancellation and Substitution</li> <li>c. Project associated with the T-56 engine workload, which was transferred</li> <li>to the Air Force, (San Antonio, TX-LOC). Dollars were reprogrammed to the</li> <li>CORPORATE ASKARS UPGRADE which had changes in scope.</li> </ul>	<ul> <li>3. Depot Maintenance - Aviation Depots</li> <li>a. Non-ADP Equipment/CORPORATE ASKARS UPGRADE</li> <li>b. Deferral and Substitution</li> <li>c. Project was deferred due to delays in the design phase, obligations not likely to occur until FY 1996. Telephone System Upgrade substituted-Upgrade is to replace the existing telephone system due to is age and technical obsolescence. By utilizing an existing contract vehicle, we have the opportunity to execute the project within the next few months. Most of the balance was used for the ADPE projects mentioned in the following pages and transferred to the lower categories.</li> </ul>

\$ 760

# FY 1995 DROF CAPITAL PLIBOUAGES

	FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
	NAVY (\$ in 000)
4	<ul> <li>4. Depot Maintenance - Aviation Depots</li> <li>a. ADP Equipment/Multi-User Computer System</li> <li>b. Substitution</li> </ul>
	<ul> <li>This project was originally planned for execution in FY 1994, due to not receiving         FY 1994 carryover authority to obligate, this carryover amount to FY 1995.     </li> <li>Dollars were programmed from Non-ADP Equipment category.</li> </ul>
5.	5. Depot Maintenance - Aviation Depots a. ADP Equipment/File Server System b. Substitution
	<ul> <li>This project was originally planned for execution in FY 1994, due to not receiving         FY 1994 carryover authority to obligate, this carryover amount was programmed to FY 1995.     </li> <li>Dollars were programmed from Non-ADP Equipment category.</li> </ul>
6.	6. Depot Maintenance - Aviation Depots
	a. ADP Equipment/Desktop Publishing System b. Substitution
	c This project was originally planned for execution in FY 1994, due to not receiving

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This project was originally planned for execution in FY 1994, due to not receiving FY 1994 carryover authority to obligate, this project was programmed to FY 1995. Dollars were programmed from Non-ADP Equipment and Minor Construction categories.

# SNOI

FY 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIC NAVY (\$ in 000)	<ol> <li>Depot Maintenance - Aviation Depots</li> <li>Non-ADP Equipment/High Pressure Compressed Air Storage System</li> <li>Substitution</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ol>	<ul><li>2. Depot Maintenance - Aviation Depots</li><li>a. Non-ADP Equipment/Auto Deblade System</li><li>b. Cancellation and Substitution</li><li>c. Due to the substitution, DBOF cash was not affected.</li></ul>	<ol> <li>Depot Maintenance - Aviation Depots         <ul> <li>Non-ADP Equipment/CORPORATE ASKARS UPGRADE</li> <li>Deferral and Substitution</li> <li>Project was deferred due to delays in the design phase, obligations not likely to occur until FY 1996. Telephone System Upgrade substituted-Balance after the Telephone System was reprogrammed to ADP Equipment on the following pages.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul> </li> </ol>
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\$ 2,140

\$1,500

\$ 760

\$1,200

# FY 1995 DROF CAPITAL PLIBCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS	NAVY (\$ in 000)	<ul><li>4. Depot Maintenance - Aviation Depots</li><li>a. ADP Equipment/Multi-User Computer System</li><li>b. Substitution</li></ul>	c. Due to the substitution, DBOF cash was not affected.	<ol> <li>Depot Maintenance - Aviation Depots</li> <li>ADP Equipment/File Server System</li> <li>Substitution</li> </ol>	c. Due to the substitution, DBOF cash was not affected
		4.		5.	

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6. Depot Maintenance - Aviation Depots

## DEPARTMENT OF THE NAVY DEFENSE BUSINESS OPERATIONS FUND NAVAL ORDNANCE CENTER NAVAL WEAPONS STATIONS

#### Activity Group Function:

The Naval Ordnance Center (NAVORDCEN) and the Naval Weapons Stations (NWS) provide all services for explosive outloading of combat logistic force ships, amphibious ships, combatants, submarines and commercial vessels. The stations also provide retail ammunition management services including receipt, segregation, storage, issue and maintenance of ammunition. Other functions include intermediate and depot level maintenance assignments for air, surface and subsurface weapons, prototype and pilot production services, quality evaluation services, acquisition engineering-agent functions, support of non-tactical fleet data systems, and ordnance packaging, handling, storage and transportability. All five stations are host activities with significant military/tenant support responsibilities. Four of the stations provide complete homeporting services for naval combat logistic force ships. The activity group also includes the Naval Warfare Assessment Division (NWAD) and Inventory Management and Systems Division (IMSD). NWAD is responsible for the assessment of weapons performance by all Fleet units. This responsibility involves gauging the war fighting capacity of ships and aircraft, from unit to battlegroup level, by assessing the suitability of design, the performance of equipment and weapons, and the adequacy of training. The mission of the IMSD is to provide centralized ordnance inventory control.

#### Activity Group Composition:

#### Activities

NAVORDCEN Atlantic Division Naval Weapons Station Naval Weapons Station Naval Weapons Station

NAVORDCEN Pacific Division
Naval Weapons Station
Naval Weapons Station

Naval Warfare Assessment Division

Inventory Management and Systems Division

#### Location

Yorktown, Virginia Charleston, South Carolina Earle, Colts Neck, New Jersey Yorktown, Virginia

Seal Beach, California Concord, California Seal Beach, California

Corona, California

Mechanicsburg, Pennsylvania

#### Budget Highlights:

#### 1. Summary of Budget Data.

\$ in Mil.	FY 94	FY 95	FY 96	FY 97
Revenue	505.0	668.2	598.7	532.5
Cost	670.4	603.8	551.0	532.5
NOR	-165.4	<b>*</b> 50.7	47.7	0.0
Transfer	0.0	78.7	0.0	0.0
AOR	-207.7	-78.3	#-30.6	0.0
Adjusted AOR	-207.7	-78.3	0.0	0.0
Civilian E/S	5,919	4,947	4,679	4,405
Civilian W/Yrs	6,155	5,410	4,884	4,599
Military E/S	358	292	816	816
Military W/Yrs	577	643	875	865

<sup>\*</sup> Includes deduction of the Capital Surcharge of \$13.7 million for JLSC.

Trends for revenue, cost, civilian and military personnel are consistent with assumptions and projections for direct workload, stabilized rates and achievement of a zero accumulated operating results (AOR) by the end of FY 1996 and FY 1997. FY 1995-1997 military end strength projections reflect 483 overhead personnel performing security guard and base support functions which were previously centrally funded by the MPN appropriation and reflected as non-DBOF military.

- 2. General. The NWS are undergoing major reorganizations as a result of Defense force structure reductions. These reorganizations will result in a projected 3,757 civilian personnel end strength reduction from the FY 1992 level of 8,162 to 4,405 by the end of FY 1997. This will equate to a 46 percent reduction in our civilian workforce. Highlights of the major variables impacting our current budget projections are explained in the following sections.
- 3. <u>Civilian Manpower</u>. The budget reflects the following NAVORDCEN civilian manpower profile:

	FY 94	FY 95	<u>FY 96</u>	<u>FY 97</u>
End Strength	5.896	4.947	4.679	4.405
Full Time Perms	5,412	4,746	4,406	4,139
Temps/Other	484	201	273	266

<sup>#</sup> This negative AOR will be offset by positive cash balance in Navy Supply.

<u>Workyears</u>	6.516	5,645	5,130	4.830
ST Direct	3,500	3,273	2,981	2,801
ST Indirect	2,655	2,137	1,903	1,798
OT Equivalent	361	235	246	231
DLHs (Millions)	6.611	6.225	5.755	5.412

FY 1994-1997 reductions in civilian end strength and workyears is consistent with direct workload trends. From FY 1994-1997, direct labor hours are projected to drop by 18 percent, while total end strength and workyears will decrease by 25 and 25 percent respectively. Over this period, the largest workyear reductions are anticipated to occur in the indirect/overhead area. Indirect or overhead straight-time workyears are expected to decrease by 32 percent whereas direct straight-time workyears will decrease by 20 percent, consistent with the trend in direct workload. The significant reductions in indirect will result from both consolidation and flattening of the NAVORDCEN infrastructure via reduction and elimination of unnecessary and redundant functions, and outsourcing where it is cost effective. Selected overhead functions will be consolidated at the NAVORDCEN Atlantic and Pacific Divisions to achieve economies of scale.

The budget assumes the following with regard to VERA/SIP/RIF:

S in Millions	FY 95	FY 96	FY 97
VERA/SIP	\$1.2	\$2.8	\$1.4
# of Employees	51	119	59
RIF	\$9.4	\$3.1	\$1.5
# of Employees	890	276	137

The following estimates for reserve contributory support have been incorporated in the budget:

	FY 95	FY 96	FY 97
Reserves (\$ in Mil)	3.7	3.2	3.6
Workyears	78	90	100

4. FY 1994-1997 Headquarters Costs: The budget reflects the following NAVORDCEN Headquarters Costs in support of the Naval Weapons Stations.

<u>\$ in Millions</u>	FY 94	FY 95	FY 96	FY 97
Cost of Operations	\$13.1	\$10.9	\$10.7	\$11.0

5. FY 1996/1997 Rates. FY 1996/1997 NWS rates were developed to recover all costs and achieve a zero accumulated operating results (AOR) by the end of FY 1996 and through FY 1997. For this budget,

FY 1996 proposed rates include an AOR recoupment of \$47.7 million. The FY 1997 proposed rate is a break-even estimate and does not include a proposed AOR recoupment factor.

	FY 94	FY 95	FY 96	FY 97
Composite Rate	\$80.52	\$93.76	\$106.60	\$97.21
Composite Rate Change		+16.4%	+13.7%	-8.8%

6. Unit Cost. The budget reflects the following unit cost goals:

\$/DLHs in Mil.	FY 94	FY 95	FY 96	FY 97
Total Costs	670.4	603.8	551.0	532.5
DLHs	6.611	6.225	5.755	5.412
Unit Cost	101.41	\$97.00	\$95.74	\$98.39
% Chg. Unit Cost	10.9%	-4.3%	-1.3%	2.8%
% Chg. DLHs	-10.7%	-5.8%	-7.6%	-6.0%

7. <u>Performance Measures</u>. The performance measures for the Naval Ordnance Center are NOR, Schedules, and Quality.

	FY 95	FY S	6 FY 97
NOR	50.7		
Schedules .	Measure	under	development
Quality	Measure	under	development

The NAVORDCEN's ability to consolidate and eliminate unnecessary and redundant overhead functions as its direct workload continues to decline is critical to achievement of the budget goals.

8. 1993 Base Realignment and Closure (BRAC-93). The budget includes the following amounts associated with the BRAC-93 decision to move the Standard Missile depot level maintenance workload from NWS Seal Beach to the Letterkenney Army Depot:

\$ in Millions	FY 94	FY 95	FY 96	FY 97
Standard Missile Funding	0.01 <b>4</b>	0.336	0.457	0.000 End
Strength & Workyears	0	2	3	0

The Standard Missile depot level maintenance workload is part of a larger BRAC-93 decision to consolidate all DOD tactical missile depot level maintenance workload at Letterkenney Army Depot.

9. <u>Capital Purchases Program (CPP)</u>. The CPP allows for improvement in readiness, sustainability and mobilization for mission support through replacement of existing overaged facilities and equipment and investment in new productivity enhancing projects. In addition, these

capital investments contribute to resolving environmental and safety compliance related requirements. The FY 1995 CPP budget reflects a decrease of \$9.1 million in authority from the President's budget. The following displays the CPP requirements/authority reflected in the budget:

S in Millions	FY 95	FY 96	FY 97
Equipment	2.4	4.6	2.9
ADP/IT	7.2	6.1	3.5
Minor Construction	2.4	2.9	3.0
Total CPP	12.0	13.6	9.4

## DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:	•			
Gross Sales	505.0	668.2	598.7	532.5
Operations	475.4	635.8	579.8	513.8
Capital Surcharge	0.0	13.7	0.0	0.0
Depreciation except Maj Const	18.9	18.7	18.9	18.7
Major Construction Depreciation	10.7	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	505.0	668.2	598.7	532.5
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	12.3	12.5	12.3	12.0
Salaries and Wages:		,	V-1.5	
Military Personnel	23.6	21.6	26.3	27.0
Civilian Personnel	307.1	279.5	255.5	246.1
Materials, Supplies and				
Parts used in Operations	56.8	59.7	39.4	32.6
Facility Repair Charge	66.1	44.3	44.5	51.1
Depreciation - Capital	30.5	18.7	18.9	18.7
Contracted Engineering Services	5.2	4.5	4.6	4.6
Lease Costs	1.0	1.5	1.6	1.6
Purchased Utilities	13.7	15.9	13.5	14.4
Purchased Communications	3.2	4.6	4.6	4.7
Equipment Maintenance	5.0	4.3	4.4	4.2
Fuel	2.9	3.0	3.0	2.9
Other Expenses	143.1	133.5	122.4	112.5
Total Expenses	670.5	603.8	551.0	532.5
Operating Result	(165.5)	64.4	47.7	0.0
Less Capital Surchg Reservation	0.0	13.7	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	3.0	78.7	30.7	0.0
Net Operating Result	(162.4)	129.4	78.3	0.0
Prior Year AOR	(45.3)	(207.7)	(78.3)	0.0
Accumulated Operating Result	(207.7)	(78.3)	0.0	0.0

#### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 503.4	FY 1995 667.0	FY 1996 606.3	FY 1997 549.6
a. Orders from DoD Components	415.6	551.3	492.9	443.2
Department of the Navy	404.2	533.1	470.0	420.6
Operations and Maintenance, Navy	263.4	328.6	273.8	227.0
Operations and Maintenance, Marine Corps	5.6	3.5	5.7	6.5
O&M, Navy Reserve	0.9	1.6	1.6	1.3
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	3.2	6.2	6.0	6.2
Weapons Procurement, Navy	32.5	41.1	36.8	37.3
Shipbuilding & Conversion, Navy	25.6	61.9	59.7	62.5
Other Procurement, Navy	25.4	25.7	24.9	24.8
Procurement, Marine Corps	4.7	15.4	10.1	10.4
Family Housing, Navy and Marine Corps	28.1	21.4	22.6	20.9
Research, Development, Test & Eval, Navy	14.0	8.9	7.5	6.9
Military Construction, Navy	0.5	0.0	0.0	0.0
Other Navy Appropriations	0.1	19.0	21.2	16.9
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	6.1	6.2	10.5	11.4
Army Operation & Maintenance Accounts	2.8	3.5	2.5	2.7
Army Res, Dev, Test & Eval Accounts	0.2	1.2	1.4	1.1
Army Procurement Accounts	0.0	0.0	0.0	0.0
Army Other	3.1	1.5	6.6	7.6
Department of the Air Force	1.8	10.4	10.6	10.1
Air Force Operation & Maintenance Accounts	1.2	9.6	9.5	9.0
Air Force Res, Dev, Test & Eval Accounts	0.3	0.1	0.1	0.1
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.3	0.7	1.0	0.9
DoD Appropriated Accounts	3.6	1.6	1.8	1.0
Base Closure and Realignment	0.0	0.3	0.4	0.0
Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.6	0.0	0.0	0.0
DoD Other	2.9	1.3	1.3	1.0
b. Orders from DBOF Business Areas	63.1	66.2	66.2	58.0
c. Total DoD	478.7	617.5	559.1	501.2
d. Other Orders	24.7	49.5	47.2	48.4
Other Federal Agencies	1.0	0.7	0.6	0.6
Trust Funds (including FMS)	20.5	44.6	42.2	43.4
Non Federal Agencies	3.1	4.2	4.4	4.4
2. Carry-In Orders	189.7	188.1	186.9	194.5
3. Total Gross Orders (available funding)	693.1	855.1	793.2	744.1
4. Carry-Out Orders	188.1	186.9	194.5	211.6
Change in Backlog (carry-out less carry-in)	(1.6)	(1.2)	7.6	17.1
5. Total Gross Sales	505.0	668.2	598.7	532.5

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
NAVAL WEAPONS STATIONS
February 1995
(\$ in Thousands)

	Cost of Operations <b>EY 1994</b>	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1995</b>	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1996</b>	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1997</b>	
Military Personnel Compensation	23,581	613	(2,565)	21,629	0	4,706	26,335	0	929	26,991	
Civilian Personnel Compensation	307,077	965'9	(34,182)	279,491	1,888	(25,865)	255,514	2,785	(12,152)	246,147	
Travel	12,274	138	62	12,474	106	(367)	12,213	100	(372)	11,941	
Material & Supplies - Commercial	19,662	514	4,018	24,194	721	(8,960)	15,955	474	(835)	15,594	
Material & Supplies - from DBOF	40,711	2,849	(4,293)	39,267	(1,876)	(10,903)	26,488	1,197	(7,827)	19,858	
Other Intrafund (DBOF) Purchases	43,283	4,103	933	48,319	29	(1,967)	46,411	1,500	2,545	50,456	
Transportation	29	8	8	69	က	(14)	28	8	(2)	28	
Capital Investment Depreciation	30,532	0	(11,810)	18,722	0	216	18,938	0	(257)	18,681	
Other Purchases	193,222	5,410	(38'396)	159,636	4,789	(15,289)	149,136	4,474	(10,843)	142,767	
Total Operating Budget * *Includes Reimbursements	670,401	20,225	(86,825)	603,801	5,690	(58,443)	551,048	10,532	(29,087)	532,493	

## SUMMARY OF CHANGES IN OPERATIONS

(₩\$)

471.0

670.4

COSTS

2. FY 1995 P 3. Estimated 4. Pricing Adj 5. Productivit a. Work 1.	-	1 EV 1994 Actual
<ul> <li>2. FY 1995 P</li> <li>3. Estimated</li> <li>4. Pricing Adj</li> <li>5. Productivit</li> <li>6. Program C</li> <li>a. Work</li> <li>1.</li> </ul>	<u>:</u>	Table Actual
Estimated Pricing Adj Productivit a. Work 1.	6	
<ul> <li>4. Pricing Adj</li> <li>5. Productivit</li> <li>6. Program C</li> <li>a. Work</li> <li>1.</li> </ul>	က်	
5. Productivit 6. Program C a. Work 1.	4	
6. Program C a. Work 1.	ю ОО(	
a. Workload: 1. Direct Civilian Workyea Maintenance Crash & MF Family Housing Air Force Supt SPCC Repairables Standard Missile/Vertice Mare Island Annex Foreign Military Sales AEGIS Acquisition Training for Marine Corps Supt	ဖ )20՝	
	7	V -

Material Readiness at NWAD Division 2E/2T Cog Ammunition

11.8

58.7

Direct Material Cost changes associated with increased direct workload (mentioned Fiber Optic Integrated Voice Communications System (FOIVCS) above); specifically in the following areas: Aviation Support Equipment Maintenance J.S. Air Force Prepositioned Ships New Ships Outfitting requirements Performance Assessment Measurement Science Fleet range/TACTS ech rep, Pomona **Quality Assurance** તં

Direct Travel Cost changes associated with increased direct workload က

Direct Contract Cost changes associated with increased direct workload, specifically in the following areas:

Measurement Science

**Quality Assessment** 

ransportation and Utility Support

-amily Housing Support

Performance Assessment

-leet range/TACTS

Air Launched Missile Support

rug & Equipment rental (Prepo Ships)

New Ships Outfitting requirements Marine Corps Ammo Quality Eval

Napalm Disposal

Fiber Optic Integrated Voice Communications Systems (FOIVCS) Tech Rep Pomona

Security Support Standard Missile Support 2E/2T Ammunition Support

**Formal Solution** Formal Programme Forma

000208

Aviation Support Equipment Maintenance Equipment Calibration Atlantic Fleet Units Technical Services in support of the Navy's Test Equipment Calibration Program Science Material/Procurement Support SM UHF Telemetry DLMF MK612 Test set AEGIS housing lease Engineering Support for Extended Echo Ranging Army Support Air Force Support Mine Support	Overhead Labor Cost Changes associated with RIF/SIP/VERA	Overhead Labor Cost Changes associated with Locality Pay for HQ and East Coast Weapo Stations (Yorktown, Charleston), pricing adjustments, and stay-in-schools	Overhead Labor Cost Changes associated with 9% Retirement tax and \$80 per on board tax	General & Administrative Contract Cost Changes (excluding HRO) associated with: Ordnance Handling/Explosive Safety Program \$7.3M ADP support services \$2.6M Telephone rate increases associated with CATS \$2.0M Increased DFAS costs \$.4M	Production Expense Contract Cost Changes associated with: CAIMS support services \$4.0M Service contract (BOSC) at Port Hadlock \$3.5M In support of Naval Warfare Assessment Division increased workload \$2.4M YFN/YTB Overhaul increase \$1.4M	General & Administrative and Production Expense Material Cost Changes associated increased CPP threshold change, and increased direct workload	General & Administrative and Production Expense "Other" Cost Changes associated primarily with increased FECA costs, and travel
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10.6 4.4 0.7

2.9

8.8

FY 1995 Current Estimate

7.

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0.0 0.8 0.0 0.3 0.3 0.3 0.1

Productivity initiatives and Other Efficiencies  Program Changes:  Workload  Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval Weapons Stations (from 3,424 (ST+OT) in FY95 to 3,142 (ST+OT) in FY96) as a result of reductions in customer support requirements impacted by concerted efforts to downsize.  Reductions in manpower are being implemented through the Reduction in Force (RIF) process, VERA/SIP initiatives and attrition.  2. Direct Military Labor Cost changes associated with decreased workload (mentioned above), and specifically in the following areas:  NWS Seal Beach: completion of the FMS Ships Outfitting  NWS Concord: decreased requirement for the Air Force prepositioned ship program and FMS case JA-P-LND  NWAD: Measurement Science, Performance Assessment and Outality Assurance	ricing A FY 1. 2. Ann Stor Nor DBC	Pricing Adjustments:  1. Civilian Personnel 2. Military Personnel 3. Annualization of prior year payraise 4. Stock Fund - Fuel 5. Non Stock Fund/Equipment 6. Non Stock Fund/Equipment 7. Travel/Transportation/Other	
Program Changes:  Workload  1. Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval Weapons Stations (from 3,424 (ST+OT) in FY95 to 3,142 (ST+OT) in FY96) as a result of reductions in customer support requirements impacted by concerted efforts to downsize. Reductions in manpower are being implemented through the Reduction in Force (RIF) process, VERA/SIP initiatives and attrition.  2. Direct Military Labor Cost changes associated with decreased workload (mentioned above), and specifically in the following areas:  NWS Seal Beach: completion of the FMS Ships Outfitting  NWS Concord: decreased requirement for the Air Force prepositioned ship program and FMS case JA-P-LND  NWAD: Measurement Science, Performance Assessment and Quality Assurance	roductiv	vity initiatives and Other Efficiencies	
Direct Military civilian rate ta Direct Materia and specifica NWS NWS	rogram Wol	Changes: rkload Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval Weapons Stations (from 3,424 (ST+OT) in FY95 to 3,142 (ST+OT) in FY96) as a result of reductions in customer support requirements impacted by concerted efforts to downsize. Reductions in manpower are being implemented through the Reduction in Force (RIF) process, VERA/SIP initiatives and attrition.	
Direct Materia and specifica NWS NWS	ત્રં	Direct Military Labor Cost changes associated with priceout based on equivalent civilian rate tables	
	က်	Direct Material Cost changes associated with decreased workload (mentioned above), and specifically in the following areas:  NWS Seal Beach: completion of the FMS Ships Outfitting  NWS Concord: decreased requirement for the Air Force prepositioned  ship program and FMS case JA-P-LND  NWAD: Measurement Science, Performance Assessment and Quality Assurance	

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(12.2)

(0.5)

(20.4)

0.5	General & Administrative Material Cost changes associated primarily with equipment purchases. (e.g. CPP threshold change effective FY 1996)	တ်
(0.1)	Other Overhead Civilian Labor Cost changes.	ထ်
(4.8)	Overhead Civilian Labor Cost changes associated with RIF/SIP/VERA	7.
(2.1)	Production Expense Military Workyears/Military Labor Cost changes associated with decreased military (from 136 military PE workyears in FY95 to 112 military PE workyears in FY96). The reduction in military personnel is based on the future year defense plan (FYDP) and the military labor price out based on equivalent civilian rates.	ဖ်
(17.1)	Direct Contract Cost changes associated with significant reductions in direct workload and general downscaling of the Department of Defense, and specifically in the following areas: Science & Engineering Science Material Support Measurement Science Ouality Assurance Fiber Optic Integrated Voice Communications Systems (FOIVCS) Performance Assessment Tech Rep Pomona Waterfront Operations Fleet range/TACTS Demil	
(0.3)	Direct Travel Cost changes associated with decreased direct workload	4.
•	Directorates  NWS Yorktown: reduction due to prior year purchase of the Fiber Optic Integrated Voice Communication System (FOIVCS); and the Integrated Voice Communication System (IVCS)  NWS Charleston and Earle: reductions due to less funding available from resource sponsors	

<ol> <li>General &amp; Administrative Contract Cost changes associated primarily with reduction in purchased utilities (i.e. NWS Yorktown completion of utility projects of the water distribution and steam line system)</li> </ol>	(1.0)
FY 1996 Current Estimate	551.0
Pricing Adjustments:  a. FY 1997 Payraise  1. Civilian Personnel  2. Military Personnel  b. Annualization of prior year payraise  c. Stock Fund - Fuel  d. Stock Fund Material/Equipment  f. DBOF Price Changes  g. General Purchase Inflation  h. Travel/Transportation/Other	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0
Productivity initiatives Program Changes:	
<ul> <li>a. Workload</li> <li>1. Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval</li> <li>Weapons Stations (from 3,142 (ST+OT) in FY96 to 2,948 (ST+OT) in FY97) as a result of</li> <li>of reductions in customer support requirements implemented by concerted efforts to downsize.</li> <li>Reductions in manpower are being impacted through the Reduction in Force (RIF) process,</li> <li>VERA/SIP initiatives and attrition.</li> </ul>	(5.4)
<ol> <li>Direct Material Cost changes associated with decreased workload (mentioned above), and specifically in the following areas:         Container Repair, MK-86 Antenna Ranging, and New Ships Outfitting</li></ol>	(3.4)

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12.

(12.6) g areas:
and general Cost changes associated with significant reductions in direct workload and general downscaling of the Department of Defense, and specifically in the following areas:  NWAD: Reduced contractor requirements for the Performance Assessment, Quality Assurance and Scientific Engineering Directorates Detachment Fallbrook: reduced ALM contract support NWS Yorktown, Charleston, Earle: reduction to contract requirements

Overhead Civilian Labor Cost changes associated with RIF/SIP/VERA

(3.1)

(4.3)

532.5

Overhead Civilian Labor Cost changes associated with decreased overhead workyears (from 1,988 (ST+OT) in FY96 to 1,882 (ST+OT) in FY97) 5

16. FY 1997 Current Estimate

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS

#### MATERIAL INVENTORY DATA (Dollars in Millions)) FISCAL YEAR 1994

		Peacetime		
	Total	Mobilization	<b>Operating</b>	Other
Materiel Inventory BOP	16.7	0.0	16.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	56.2	0.0	56.2	0.0
Gross Sales	60.4	0.0	60.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT				
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	12.5	0.0	12.5	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				•
EOP (memo)	3.1	0.0	3.1	0.0

# DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS

### MATERIAL INVENTORY DATA (Dollars in Millions)) FISCAL YEAR 1995

			Peacetim	e
	<u>Total</u>	<b>Mobilization</b>	Operating	Other
Materiel Inventory BOP	12.5	0.0	12.5	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	62.8	0.0	62.8	0.0
Gross Sales	63.5	0.0	63.5	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-) ISSUES/RECEIPTS WITHOUT	0.0	0.0	0.0	0.0
REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	11.8	0.0	11.8	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	3.0	0.0	3.0	0.0

#### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS

## MATERIAL INVENTORY DATA (Dollars in Millions)) FISCAL YEAR 1996

		<u>Total</u>	Mobilization	Peacetime	e Other
Materiel Inventory BOP	-	11.8	0.0	11.8	0.0
BOP Reclassification Changes		0.0	0.0	0.0	0.0
Price Changes		0.0	0.0	0.0	0.0
Receipts from Commercial Sources		0.0	0.0	0.0	0.0
Negotiated Purchase from Customers		41.6	0.0	41.6	0.0
Gross Sales		42.4	0.0	42.4	0.0
Materiel Inventory Adjustments					
CAPITALIZATIONS + OR (-)		0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)		0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)		0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT					
REIMBURSEMENT + or (-)		0.0	0.0	0.0	0.0
OTHER (list)		0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS		0.0	0.0	0.0	0.0
Materiel Inventory EOP		11.0	0.0	11.0	0.0
ECONOMIC RETENTION (memo)		0.0	•••	••••	0.0
POLICY RETENTION (memo)		0.0			
POTENTIAL EXCESS (memo)		0.0			
Materiel Inventory on Order					
EOP (mcmo)		2.8	0.0	2.8	0.0

# DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY NAVAL WEAPONS STATIONS

#### MATERIAL INVENTORY DATA (Dollars in Millions)) FISCAL YEAR 1997

			Peacetim	e
	Total	Mobilization	<b>Operating</b>	Other
Materiel Inventory BOP	11.0	0.0	11.0	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	34.8	0.0	34.8	0.0
Gross Sales	35.5	0.0	35.5	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	10.3	0.0	10.3	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order				
EOP (memo)	2.6	0.0	2.6	0.0

DESCRIPTION  1a. Non ADP Equip > 500K  P-171 NON-ADP EQUIP W (N Mission)  Subtotal Non ADP Equip < Replacement  Productivity  New Mission  Envir/Safety  Subtotal Misc Non ADP Equ  Subtotal Misc Non ADP Equ  Subtotal Misc Non ADP Equ  Subtotal Misc Non ADP Equ  Subtotal Misc Non ADP Equ  REL OPEN SYS NETWRK 96/ (Replacement)	Maintenance Capital Budget Submission Department of the Navy Depot Maintenance/Weapons Station FY 96/97 President's Budget (\$In Millions)	FY94 FY95 FY96 FY97	OTY COST OTY COST OTY COST COST		1 0.860 1 0.076	0.860 0.076	)0K	VAR 2.083 VAR 1.396 VAR 3.125 VAR 2.246	VAR 0.372 VAR 0.093 VAR 0.140	VAR 0.252 VAR 0.456 VAR 0.157 VAR 0.169	VAR         0.513         VAR         0.330         VAR         1.218         VAR         0.466	3.220 2.275 4.640 2.881		1 0.190 1 0.113
	Depot Maintenance Depart Deport Mainten FY 96/97			Non ADP Equip >	P-171 NON-ADP Mission)	Non ADP	Misc.Non ADP Equip	Replacement	Productivity	New Mission	Envir/Safety	Misc Non	ADP Equip >	B&L OPEN SYS NETWRK 96/97 (Replacement)

	Depot Maintenar	nce Ca	tal	lget	Budget Submission				
	Depot Main FY 96/9	Department Vaintenance 96/97 Presi (\$In Mi	Department of the Navy Maintenance/Weapons Station 96/97 President's Budget (\$In Millions)	Navy s Sta Budge	tion				
		FY94		FY95		FY96		FY97	-
Line #	DESCRIPTION	QTY	TOTAL COST	ХЪŎ	TOTAL COST	YTQ	TOTAL	YTØ	TOTAL
7	BROADBAND EXPANSION L (Replacement)					τ	0.185		
ω	ENGINEERING DEVELOPMENT SUPPORT SYSTEM (Replacement)					τ	0.165	1	0.125
6	ETHERNET COMM SYSTEM L (Replacement)	2	0.100						
10	HIGH SPEED ON LINE DOCUMENT RETRIEVAL SYSTEM (Replacement)					τ	0.200	1	0.075
11	LAN Expansion (Replacement)	н	0.280						
12	NETWORK MANAGEMENT SYSTEM (Replacement)	r .	0.286						
13	ON LINE MASS STORAGE AND CENTRAL PROCESSOR (Replacement)	н	0.150			τ	0:150	ī	0.150
14	DMRD 924 MIGRATION TO OSE (Productivity)	VAR	13.413	VAR	5.455	VAR	2.037		
15	APPLICATIONS SERVER (Productivity)					τ	0.150		
16	CAD WORKSTATION (Productivity)	VAR	0.075	VAR	0.073				
17	OPT SCAN STOR/RETR SYS W (Productivity)							ı	0.450

	fig.	TOTAL	0.150	0.861			1.924							
	FY97	QTY	1	1										
		TOTAL		0.340	0.506		3.923		060'0				0.090	
	FY96	QTY		1	1				VAR					
Submission ation let		TOTAL		0.601	0.250	-	6.379							
Budget S the Navy pons Sta 's Budge	FY95	QTY		1	1									
		TOTAL COST		1.120		0.200	15.624		0.341	0.062	0.098		0.501	
ice Ca irtmen tenand 7 Pre (\$In }	FY94	QTY		П		1			VAR	VAR	VAR			
Depot Maintenance Capital Department of the Department of the Depot Maintenance/Weatent Depot Ma		DESCRIPTION	SPARC FILE SERVER (Productivity)	P-171 ADP EQUIP W (New Mission)	DATA COMMUNICATIONS 95/96 W (New Mission)	B&L OPEN SYS(LAN) 94 S (New Mission)	Subtotal ADP Equip	2b. Misc. ADP Equip < 100K	Replacement	Productivity	New Mission	Envir/Safety	Subtotal Misc ADP Equip	
		Line #	18	19	20	21			22	23	24			

		در			0.310		310							
		TOTAL			0.		0	,						
	FY97	QTY			1									
		TOTAL				0.101	0.101							
e	FY96	QTX				1								
ssio		TOTAL		0.824	0.042		0.866							
lget S Navy s Sta Budge	FY95	QTY		ı	н									
tenance Capital Budget Submi Department of the Navy Maintenance/Weapons Station 96/97 President's Budget (\$In Millions)		TOTAL COST		1.950			1.950							
rtmen tenand 7 Pre	FY94	QTY		1		·								
Depot Maintenan Depa Depa Depot Maint		DESCRIPTION	3a. Telecomm Equipment > 100K	TELEPHONE SYSTEM REPLACEMENT (Replacement)	VIDEO TELECON SYS SB/PAC S 95/97 (Productivity)	TLM QUICK TDP W (New Mission)	Subtotal Telecomm Equipment	3b. Misc.Telecomm Equipment < 100K	Replacement	Productivity	New Mission	Envir/Safety	Subtotal Misc Telecomm Equipment	
		Line		25	26	27								

	FY97	TOTAL COST	+	92	99								00 VAR 0.900
		TOTAL		0.156	0.156					-			1.500
<b>u</b>	FY96	QTY		-									VAR
Submissio tion et		TOTAL											
dget Navy 18 Sta Budg	FY95	QTY											
enance Capital Budget Submi Department of the Navy Iaintenance/Weapons Station 96/97 President's Budget (\$In Millions)		TOTAL											
artmer tenan 17 Pre (\$In	FY94	QTY											
Depot Maintenance Capital Budget Submission Department of the Navy Depot Maintenance/Weapons Station FY 96/97 President's Budget (\$In Millions)		DESCRIPTION	4a. Off the Shelf Software > 100K	B&L OPEN SYS 96 S (New Mission)	Subtotal Off the Shelf Software	4b. Misc.Off the Shelf Software < 100K	Replacement	Productivity	New Mission	Envir/Safety	Subtotal Misc Off the Shelf Software	5a. Software Development > 100K	NAVORDCEN EXECUTIVE INFORMATION SYSTEM (EIS) (Productivity)
		Line #		28									29

Line DESCRIPTION  30 STOCKPILE ANALYSIS SOFTWARE  (Productivity)  Subtotal Software Development <	-	Depot Maintenance Capital Department of t Depot Maintenance/Wea	nce Ca artmen tenance 97 Pre (\$In 1	tenance Capital Budget Submiss Department of the Navy Maintenance/Weapons Station 96/97 President's Budget (\$In Millions)	dget (Navy is Sta	70				
DESCRIPTION  STOCKPILE ANALYSIS SOFTWARE (Productivity)  Subtotal Software Development < 5b. Misc.Software Development < 100K Replacement Productivity New Mission Envir/Safety Subtotal Misc Software Development  Subtotal Design Act Hardware > 6a. Central Design Act Hardware > 100K			FY94		FY95		FY96		FY97	
Subtotal Software Development  Subtotal Software Development < 100K Replacement Productivity New Mission Envir/Safety Subtotal Misc Software Development Subtotal Misc Software Ga. Central Design Act Hardware > 100K	Line	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL	QTY	TOTAL COST	QTY	TOTAL COST
otal Software Development < lisc.Software Development < lacement luctivity Mission ir/Safety  tal Misc Software lopment Central Design Act Hardware	30	1					VAR	098.0	VAR	0.373
fisc.Software Development < lisc.Software Development < lacement lacement Mission Ir/Safety  tal Misc Software lopment Central Design Act Hardware										
fisc.Software Development < lacement luctivity Mission ir/Safety  tal Misc Software lopment Central Design Act Hardware		Software						1.860		1.273
fisc.Software Development < lacement luctivity Mission Ir/Safety  tal Misc Software lopment Central Design Act Hardware				_						
lacement ductivity Mission ir/Safety  Central Design Act Hardware		fisc.Software Development								
Mission ir/Safety  btal Misc Software lopment Central Design Act Hardware		Replacement								
Mission ir/Safety  btal Misc Software lopment  Central Design Act Hardware		Productivity								
ir/Safety btal Misc Software lopment Central Design Act Hardware		New Mission								
otal Misc Software lopment Central Design Act Hardware		Envir/Safety								
otal Misc Software lopment Central Design Act Hardware										
Central Design Act Hardware		သင								
Central Design Act Hardware								·		
		Central Design Act Hardware								

	PY97	TOTAL COST									0.250	90
		TOTAL										0.260
u	FY96	QTY										
Submissio tion at		TOTAL										
dget Navy 18 Sta Budge	FY95	QTY										
enance Capital Budget Submission Department of the Navy Iaintenance/Weapons Station 96/97 President's Budget (\$In Millions)		TOTAL COST										
nce Cartmer tenan 97 Pre (\$In	FY94	QTY										
Depot Maintenance Capital Budget Submi Department of the Navy Depot Maintenance/Weapons Station FY 96/97 President's Budget (\$In Millions)		DESCRIPTION	Subtotal Central Design Act Hardware	6b. Misc.Central Design Act Hardware < 100K	Replacement	Productivity	New Mission	Envir/Safety	Subtotal Misc Central Design Act Hardware	7a. Minor Construction > 200K	EXPAND C-1 FOR SECURITY DEPARTMENT (Productivity)	EXPAND R-5, W/F SECURITY (Productivity)
		Line									31	32

	Depot Maintenance Capital Budget Submission Department of the Navy Depot Maintenance/Weapons Station FY 96/97 President's Budget (\$In Millions)	nce Ca artmen tenance 97 Pre	tenance Capital Budget Submi Department of the Navy Maintenance/Weapons Station 96/97 President's Budget (\$In Millions)	dget S Navy 18 Sta Budge	ubmission tion				
		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL	ΩTΥ	TOTAL
33	INSTALL PAVED ROADS IN MAGAZINE AREAS (Env/Safety)						0.200		0.200
34	LIGHTNING PROTECTION VARIOUS LOCATIONS (Env/Safety)								0.240
35	PRIMARY GROUNDING - PIER 3 (Env/Safety)								0.280
36	PROVIDE SECONDARY GROUNDING - PIER 3 (Env/Safety)						0.280		
37	SPRINKLER SYSTEMS/FIRE ALARMS (Env/Safety)								0.210
	Subtotal Minor Construction						0,740		1.180
	7b. Misc.Minor Construction < 200K								
38	Replacement	VAR	0.587	VAR	0.253	VAR	0.335		
39	Productivity	VAR	0.475	VAR	0.130	VAR	0.570		
40	New Mission	VAR	0.217	VAR	0.231			VAR	0.200
41	Envir/Safety	VAR	3.074	VAR	1.770	VAR	1.216	VAR	1.616

	Ω	Depot Maintenance Capital Budget Submission Department of the Navy Depot Maintenance/Weapons Station FY 96/97 President's Budget	rce Cartmer tenan 17 Pre	enance Capital Budget Sul Department of the Navy Maintenance/Weapons Stati 96/97 President's Budget	lget S Navy s Sta Budge	Submission tion				
			FY94		FY95		FY96		FV97	
Line	DESCRIPTION		ΥΤζ	TOTAL	QTY	TOTAL	OTY	TOTAL	OTV	TOTAL
									ž	
	Subtotal Misc Minor Construction	onstruction		4.353		2.384		2.121		1.816
	GRAND TOTAL			26.508		11.980		13.631		9.384

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	WCE CAP Dollare	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES Jusands)	JUSTIF	CATION		let Subi	Budget Submission FY96/97 President'	Budget Submission FY96/97 President's Budget		1	
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	einess T/WPNS	Area/D	a te	C. Lir 2/Misc Items	ne. No	Line. No & Description fisc Non ADP Equip Rep	Rep	D. Act	D. Activity Identification NAVAL ORDNANCE CENTER	entific SENTER	ation	
	FY 1994	7		FY 1995	15		FY 1996	9		FV 1007		
ELEMENTS OF	Unit	Unit	Total	4				Unit	Total	,		Total
			2802	Vualit COBC	2802	COBC	Quant Cost	Cost	Cost	Quant   Cost	Cost	Cost
NON-ADP EQUIP	•						VAR		3,125	VAR		2,246

electro-arc disintegrator, milling machines, lathes, two way radio console, 420 KV x-ray machine, a robotic welder, civil engineering support equipment such as tractor trucks, multi-step van, This investment replaces aged equipment that is beyond economical repair and will reduce downtime and maintenance. Examples of the types of equipment being purchased are test equipment, an loaders, a wrecker, forklifts, tractors, and a crane.

(Dollars in Thousands)  (Dollars in Thousands)  (PY96/97 President's Budget	ea/Date C. Line. No & Description D. Activ 3/Misc Non ADP Equip Prod NAVAL ORD Items	FY 1994 FY 1995 FY 1996 FY 1997	UnitTotalUnitTotalUnitTotalUnitTotalQuantCostQuantCostQuantCostQuantCostCostCost	140	stification: (Productivity)	ments are productivity related items which improve the quality and efficiency of the ed at the weapons stations. The equipment being purchased is an ultrasonic (UT) em. An economic analysis was completed on this project and the following information	LIFETIME DISCOUNTED SAVINGS SAVINGS TO INVESTMENT PAYBACK SAVINGS (\$000) BEGINS RATIO (SIR) PERIOD	077 1.55 6.15 YRB
	usiness Ar :NT/WPNSTA/	199			ification:	ints are prolated at the west.	IBCOUNTED is (\$000)	2.2
DEPOT MAINTENANCE (DOI	B. Component/Business Ar DON/DEPOT MAINT/WPNSTA/		ELEMENTS OF COST	NON-ADP EQUIP	Narrative Justification:	These investments work performed at imaging system.	LIFETIME DI Bavings	

ontific SENTER FY 199 Quant	DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP Dollars	INCE CAPITAL PURCHABES (Dollars in Thousands)	RCHABES usands)	JUSTIFI	CATION		ret Bubi	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget			
FY 1994FY 1995FY 1996FY 1996Quant Cost Cost Cost Cost Cost Cost Cost Cos	B. Component/Bi DON/DEPOT MAII	usiness NT/WPNS	Area/Di TA/	ate	. E. B	Non A	f Descrip DP Equip	a	D. AGINAVAL	tivity id	entific CENTER	ation	
Quant CostCostUnitTotalUnitTotalQuant CostCostCostCostQuant		FY 199	7		١. ا	5		FY 199	9		PY 199	7	
VAR 157	ELEMENTS OF COST	Quant	Unit	Total	Quant		Total Cost	Quant	Unit	Total	Quant	Unit Total	Total Cost
	NON-ADP EQUIP							VAR		157			169

Marrative Justification: (New Mission)

The investment purchases equipment such as a fiber optic power test station and an infrared radiometer.

perform engineering calibration, tests, investigations and capabilities on weapons systems and test These new capabilities do not exist for this The Imaging IR Radiometer is required by the Measurement Science Lab to have lab capabilities to equipment which use thermal generation and detection. new equipment requirement.

capabilities to perform engineering tests, investigations, and calibrations on new fiber optics equipment in the Navy. These new capabilities do not exist for this new equipment requirement. The Optic Power Test Station is also required by the Measurement Science Lab to have lab

(Dollars in Thousands)	Dollar	s in Th	(Dollars in Thousands)		TCATTOR A.		Get Subr	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	r/wpng	Area/I	ate	C. Lin 5/Misc Env/8a	ine. No £ De sc Non ADP E Safety Items		-	D. Act	D. Activity Identification NAVAL ORDNANCE CENTER	entific ENTER	ation	
	FY 1994	7(		FY 199	95		FY 1996					
ELEMENTS OF	Unit	Unit	Total		Unit	Total		Unit	Total	1667 18	Unit	Total
	A THE N	3803	C081	Vuant	COST	Cost	Quant	Cost	Cost	Quant Cost	Cost	Cost
Non App Equipment							VAR		1,218	VAR		997
										•		

it regulatory requirements which are primarily environmental or safety related. Examples of the types of equipment being purchased are a wastewater treatment system, anechoic chamber, low voltage portable x-ray cell, sewage aerator system, hasardous material/waste drum stacking system, pollution control equipment and fire fighting trucks.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP Dollar	TTAL PO	NCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	CATION		et Sub	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget		1	
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness NT/WPNS	Area/E TA/	Jate	C. Line. 6/B&L OF 96/97 S	DE NO OPEN S	Line. No & Description B&L OPEN SYS NETWRK /97 S	tion	D. Act	D. Activity Identification NOCPAC DIVISION, SEAL BEACH	entific SEAL	ation	
	FY 1994	4		FY 1995	55		7000					
er ewermo or							2			FY 1997	7	
COST	Quant Cost	Unit	Total	Quant	Unit Total	Total	Unit		Total			Total
ariion day							Xuaiic	COBL	COBC	Quant Cost	Cost	Cost
ALOE EQUIP							1	190	190	T	113	113

will include fiber optic cable and connections, enterprise hubs, bridges, routers, gateways and associated infrastructure management software, and test equipment. This is an on-going project, Replace old technology at NOCPACDIV sites with high-speed backbones and interconnections. associated infrastructure management software, and test equipment. begun in FY 93, to modernize internal infrastructure. NAVSEA is creating an interactivity high-speed infrastructure to support Navy and DoD consolidation complete full intra/inter-site connectivity, with additional Pacific sites expected to be added to initiatives. NOCPACDIV must modernize internal infrastructure at all sites and interconnectivity proprietary business systems being replaced with open systems and client/server architectures. FY 93 and 94, Seal Beach, Fallbrook, and Port Hadlock are replacing local infrastructure with high-speed, fiberoptic and unshielded twisted pair 10MB or better technology to meet the new requirements for business and mission support systems. FY 96 and 97 will add components to connectivity only supports relatively low data rates and serial connections associated with between sites to support the consolidation. Current local infrastructure and intersite

000231

This Management (CIM) package, NOCPACDIV will be unable to communicate with important DOD offices. Without the equipment in place when DoD implements their Centralized Corporate Information will have a strong negative impact on our mission and workload.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTI (Dollars in Thousands)	CE CAP	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES .	USTIFI	FICATION A.		et Subr	Budget Submission			1	
						F 130	77 75	BIGENT	riso/s/ Fresident's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	isiness T/WPNS	Area/Da TA/	ate	C. Lin	DBAND	C. Line. No & Description 7/BROADBAND EXPANSION L	tion L	D. Act	D. Activity Identification NOCPAC DIVISION PORT HADIOMY	ntific	ation	
	200									1 200	3	4
	FI 1994	•		FY 1995	5		FY 1996	9		FY 1997	_	
ELEMENTS OF		Unit	Total			Total		Unit	Total		Unit	Total
Tenn	Mant Cost	COST	Cost	Quant	nt Cost	Cost	Quant Cost	Cost	Cost	Quant Cost	Cost	Cost
ADP EQUIP							ਜ	85	85		-	
TOTAL									100			

Broadband cabling, amplifiers, taps, and hardware required to extend existing broadband cable plant from headend equipment located at bidg 69 to bidg 833 located at the pier.

capability currently terminates approximately one mile from the pier. Extending the network will allow greatly improved ADP support for ship loadouts, ordnance management support (OMS), and military support personnel working at the pier. This will also provide much needed access to Provide continued ADP support to pier facilities located at Port Hadlock. Local Area Network anticipated network facilities including file servers and network printers.

ready access to needed information being processed via ADP systems. They will be forced to continue manual methods of input and processing, duplicating existing information, and transporting information by hand and vehicle. Since much of the processed information is directly related to Without complete network access throughout Port Hadlock facilities, key personnel will not have shipload operations, quality service to our customers is jeopardized.

DEPOT MAINTENANCE CAPITAL PURCHASES JUST (Dollars in Thousands)	NCE CAP Dollare	ITAL PU	NCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	FIFICATION A.		et Subr	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget	1		
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness NT/WPNS	Area/D IA/	ate	C. Lir 8/ENG1 SUPPOR	Line. No & ENGINEERING PPORT SYSTEM	Des	tion	D. Act	D. Activity Identification NOCLANT DIVISION, YORKTOWN	intification of the second of	ation	
	FY 1994	4		FY 1995	15		FY 1996			1007		l
ELEMENTS OF COST	Quant Cost	Unit Cost	Total	Quant	Unit unt Cost	Total	Ouant Coat	Unit	Total	1	Unit	Total
								2000	2002	Mane COBE	COBC	COBT
ADP EQUIP							н	150	150	T	110	110
TOTAL									15			15
												-

(CASE), Computer Aided Design (CAD), software tools, and interconnectivity support. This system will be used by the engineering staff as the primary support platform for all engineering efforts The engineering development system is required to provide Computer Aided Software Engineering such as schematic capture, pc board layout, analog and digital circuit simulation. The majority of both conventional and state-of-the-art engineering support systems requires an automated environment in which to function. In addition, the resource intensive nature of functions such as CAD and CASE as well as the capability to share information amongst engineering support in an efficient and cost effective manner. The cost savings will be realized in labor hours. This system is an improvement in methods used for schematic capture, pc board layout, design members requires a system capable of providing this interconnectivity and application analog and digital circuit simulation.

technology or from an alternate source resulting in the loss of flexibility and schedule delays If this equipment is not acquired, then this support must be provided with existing older that increase the cost of doing business.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	CE CAP Dollare	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES vusands)	JUSTIFI	CATION		Budget Submission FY96/97 President	aission sident'	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	Siness IT/WPNS	Area/Di TA/	ate	C. Lin 10/HIG DOCUME	H. SPEE	C. Line. No & Description 10/HIGH SPEED ON LINE DOCUMENT RETRIEVAL SYSTEM		D. Act.	D. Activity Identification NOCLANT DIVISION, YORKTOWN	entific V, YORK	ation	
	FY 1994	7		FY 1995	ι.		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost		Total Cost	Unit Quant Cost		Total Cost	Unit Coat	Init	Total
ADP EQUIP					-		п	200	200		75	75

This system will also reduce to manually This will provide This document retrieval system will allow on line access to all documentation. This wrapid storage and retrieval for all users from a central data base. This system will the amount of storage space required as well as reducing the number of hours required file these documents. Acquisition of this document retrieval storage system will save storage space and provide for rapid retrieval and storage of documents. This is the first portion of an effort to modernize document Retrieval at this activity. Without this system, the Systems Engineering Department must continue to manually retrieve and file documentation. This system is labor intensive and cost prohibitive in this era of reduced budgets and manpower downsizing.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	WCE CAP	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES ousands)	JUSTIFI	CATION		Budget Submission FY96/97 President	mission ssident'	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness TT/WPNS	Area/D TA/	ate	C. Lin 13/ON AND CE	LINE MINTRAL	Line. No & Description ON LINE MASS STORAGE CENTRAL PROCESSOR	ption AGE R	D. Act.	D. Activity Identification NOCLANT DIVISION, YORKTOWN	entific V, YORK	ation TOWN	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost		Total Cost	Unit Quant Cost		Total
ADP EQUIP	*	·					<b>T</b>	150	150	1	150	150
		,										

Upgrade to provide on line disk storage capacity of 20 GIGABYTES and up to 20 processors. It will have connectivity to existing Government owned computers. The modification will use the existing Government owned operating systems and FIRMWARE Without additional cost.

This growth equates to capability Disk requirements increase an average of 5 GIGABYTES per year. provided by these new disks.

The system will be inefficient, requiring more maintenance and The lack of sufficient disk capacity results in reduced user service levels which would equate to longer access and retrieval times. increased access time per user.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	MCE CAP (Dollar	TTAL PU	UNCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	CATION		ret Bub	Budget Submission FY96/97 President	Budget Submission			
B. Component/Business Area/Date DOM/DEPOT MAINT/MAVORDCEN/	usiness NT/NAVO	Area/D RDCEN/	ate	C. Lir 14/DM 08E	16. Mo	Line. No & Description DKRD 924 KIGRATION TO	ption M TO	D. Act	D. Astivity Identification MOCPAC DIVISION, CONCORD	entific	Dation	1
	FY 1994	- 70		FX 1995	5		77 1000					1
Company of the										FX 1997	7	
COST	Quant Cost	Unit	Total	Quant Cost		Total	Ouant Coat	Unit	Total		Unit	Total
TOWN SOUTH									3803	Yuant Cost	COSE	Cost
ALUGA SULP	_						VAR		2,037			

Marrative Justification: (Productivity)

mainframe computer systems (Bull (Honeyvell), UNISYB, and Data General) to open systems environment applications and common NOC support applications. A "Best of Breed" process will be done to select (08B) and terminate the existing mainframe operations. The NOC application general categories are: deployment costs are planned for the Corporate Naval Ordnance Management Information Bystem (NOMIS) MIMIP motivity group projects. NOCIMIP is to migrate selected applications from aging proprietary Headquarters, field organisations, and affiliated PBO and DRPM organisations. The Maval Ordnanoe Center (NOC) Information Management Improvement Program (NOCIMIP) project is one of five MAVSEA Financial, Integrated Logistics Support Management Information System (ILSMIS) and Standard Labor applications in support of direct customers; applications covered by standard initiatives (only NIMIP addresses information management improvements in MAVSEA MIMIP/DWRD 924 IMPLEMENTATION: NAVBRA Information Management Improvement Program (WIMIP) was the common NOC applications. NOCIMIP is an application migration program (from proprietary computer systems (downsising) and provide common applications for the NOC activities on OSE and it is not intended to enhance the applications. The result is to release the mainframe Data Collection and Distribution Applications (BLDCADA) applications); common NOC mission approved by ASH (RD&A) in 1992.

The NOC savings for the MIMIP are identified in its The funding includes the cost of the nsw OSE hardware platforms and the cost of migrating the selected applications to the OSE environment. The NOC savings for the NIMIP are identified in FEAM (functional economic analysis model).

DEPOT MAINTENANCE (Dol		NCE CAPITAL PURCHASES (Dollars in Thousands	- 0	JUSTIFICATION	CATION	A.	ret Subi 1/97 Pro	Budget Submission FY96/97 President's	s Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness NT/WPNS	Area/D TA/	ate	C. Line.	No CATI	& Description ONS SERVER	ption	D. Act NOCLANT	D. Activity Identification NOCLANT DIVISION, EARLE	entific N, EARL	ation	
	FY 199	*		FY 1995	S		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
ADP EQUIP							F	150	150			
Marrative Justification:	ificati		(Productivity	ty)								
The Information Management series of MS-DOS/NT/NOVELL	n Manag 58/NT/N		Division req servers depe	n requires depending		that the file server may be e on the applications selected.	serven	may be	server may be either a		SPARC Server	r or a
The Doc Sta Int	11 be r val and Process	equired Retrie sing Sy SIS), a	run NBN Bt	tation Parts : tion U:	Unique referer nique E	tion Unique applications such as, but not rts reference system, Government Document on Unique Data Base Server, Ordnance Adm: Presentation Graphics Generation System.	tions in Gove	such as, srnment f, Ordna	Station Unique applications such as, but not I Parts reference system, Government Document ation Unique Data Base Server, Ordnance Admir. On Presentation Graphics Generation System.	limited reference nistrative	limited to, reference Bystem, nistrative Boftwar These servers wil	stem, ftware
be placed on the Station Local a significant savings can be a individual copies.	he Stat savings les.	ion Loc can be	coal Area N be achieved	letwork by pu	rk (LAN) to purchasing	Area Network (LAN) to act as server computers for thieved by purchasing a LAN version of the softwar	version	of the	act as server computers for a LAN version of the software		any software that instead of	that
The servers will be a critical piece i the administrative functions required.	11 be a Live fu	critic		Ħ	abilit	ty of the	Static	on to do	the ability of the Station to down-sise and	and still		perform
An economic and	analysis was		completed on	41	project	t and the	follor	ring inf	his project and the following information is provided.	is pro	vided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	ISCOUNTED S (\$000)	ED 0)	SAV	<b>Bavings</b> Begns	w	BAVINGS TO RATIO		investment (SIR)	Pi Pi	PAYBACK PERIOD		
1,483	83		н	1998		10	10.89			0.44		

EPOT MAINTENA	WE CAP	NCE CAPITAL PURCHASES (Dollars in Thousands)	ASES inds)	JUSTIFICATION	CATION	A. Budget FY96/9	et Bubi	Budget Submission FY96/97 President's	's Budget	at t		
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	T/WPNS	Area/Di TA/	a t o	C. Line. 17/OPT SC	No	& Description STOR/RETR SYS	ption R 8Y8	D. Act	Activity Division,	Identification corons	ation	
	FY 1994	4		FY 1995	S.		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
ADP EQUIP										1	450	450
Narrative Justification:	ficati		(Productivity	ty)								
The Quality Assessment (QA) Directorat number of documents used by its critic include the following: optical scannin and indexing, network interfacing, and	sessmen nents u llowing	t (QA)   sed by : optical	y Assessment (QA) Directorate documents used by its critical following: optical scanning ing, network interfacing, and w	9 2 5	requires an projects. of documents		automated system The capabilities , text manipulaticess.	system to lities red ipulation	to administer required for ton, graphical	ster the for this ical imag	this automation image storage	e tion age
To support the many diverse proprocessed, reviewed, and stored weapons systems maintenance and audits, and DoD training. The indexing for future retrieval, storage of graphical images for other sponsor sites. The size hundreds of pages in length.	many dispersion train trunce reprises in green.	diverse proj and stored tenance and ning. The r retrieval, e images for The size o	T	jects managed will for future use.  performance monreview of these extraction of terminates of these of these of these of these of these documents.	d withiuse. I monito ese doc f text neering uments	managed within the QA Directorate, thousands future use. These documents encompass direct brmance monitoring, R & D support, program rev of these documents include validation of constion of text information for data base storacin engineering studies and monitoring, and transe documents varies from one page to reports	A Directuments E D su lnclude tion fo	torate, encomp pport, valida r data onitori	thousa ass dir program tion of base st ng, and to repo	nds of set Fle review content orage a transm	O O	uments are support, contractor multiple retrieval, ion to are
QAD sponsors have recognized the need timely and cost effective method. The from doing business as usual. Without able to service the needs of our sponsestudies, future systems planning, and	rve recipentiness and the point of the point	cost effective method. business as usual. Wivice the needs of our ture systems planning,	the need thod. The Without our sponsoning, and	to professions in train	ovide (re deca automaten supporting assistant	to provide document control and processing future decrease in the funding available the automation of document handling, the fors in support of Fleet information requirtraining assistance.	control and the funding locument hand leet informat	nding a of the property of the panding of the pandi	processing available lling, the	need to provide document control and processing support in a more The future decrease in the funding available prohibits the QAD thout the automation of document handling, the QAD will not be sponsors in support of Fleet information requirements, statistical and training assistance.	rt in a its the 11 not h	more QAD be stical
An economic ans	analysis was		completed on		this project	t and the		following information	formati		is provided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	TIME DISCOUNTE Bavings (\$000)	ED )	SAVINGS BEGINS	និខ	83	SAVINGS TO RATIO	$\sim$	Investment BIR)	Di Di	PAYBACK PERIOD		
	710		1999	6		2.58	58			0.97		

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP.	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES usands)	JUSTIFI	CATION		Budget Submission FY96/97 President	nission sident'	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	siness:/wPNST	Area/Da A/	ate	C. Lin 18/8PA	e. No a	Line. No & Description /SPARC FILE SERVER		D. Act	D. Activity Identification NOCLANT DIVISION, EARLE	entific N, EARL	ation	
·	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost		Total Cost
ADP EQUIP										ਜ	150	150

Marrative Justification: (Productivity)

The file server may be either a SPARC Server or a series of MS-DOS/Network Windows/NOVELL servers depending on the The Information Management Division will require the following piece of equipment. applications selected.

Station Presentation Graphics Generation System. These servers will be placed on the Station Local Document Archival and Retrieval, NSN Parts reference system, Government Document Reference System, Station Unique Data Base Server, Ordnance Administrative Software Integrated System (OASIS), and Area Network (LAN) to act as server computers for any software that a significant savings can The servers will be required to run Station Unique applications such as, but not limited to, achieved by purchasing a LAN version of the software instead of individual copies. These servers will be a critical piece in the ability of the Station to down-size and still perform the administrative functions required.

An economic analysis was completed on this project and the following information is provided.

PAYBACK PERIOD	0.44
SAVINGS TO INVESTMENT RATIO (SIR)	10.89
SAVINGS BEGINS	1999
LIFETIME DISCOUNTED SAVINGS (\$000)	1,483

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP Dollar	TTAL PU	(NCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	ICATION		et Sub	Budget Submission			ı	ı
B. Component/Ruginess and the	and and and	Page /B						Duantes	trastaent a Budget			
DON/DEPOT MAINT/WPNSTA,	NT/WPNS	TA/	are o	C. Line 20/DATA 95/96 W	ne. No TA COMM W	Line. No & Description DATA COMMUNICATIONS 96 W	ption	D. Act	D. Activity Identification NWA DIVISION, CORONA	entificorona	ation	
	FY 1994	2		FY 1995	95		FY 1996	9		200		
ELEMPINES OF		4.5 - 4.4								7 133/		
COST	Quant Cost	Cost	Total	Ought Cost		Total		Unit	Total		Unit	Total
And Editte					3200	2002	Yuant Cost	COBL	COST	Quant Cost	Cost	Cost
ATOMA JON				-			т	206	506			
The state of the s												

Narrative Justification: (New Mission)

Data communications upgrades and expansions to existing networks (both unclassified and secure).

network require higher bandwidth the need to upgrade the network to handle higher transmission data Equipment requested is required to provide the Command with non-proprietary data communications necessary to meet function and fulfill Fleet requirements. In addition, as more of the data transmission requirements on the Required by DoD to convert proprietary networks to Open Systems.

1. If enhancements are not made, network degradation will adversely affect the productivity of the Command and ability to fulfill mission to the Fleet. 2. If conversion to Open systems is not converting to open systems integration (OSI). 3. If network data communication transmission speeds are not increased, the Command's ability to assess Fleet performance using modern analysis methods will be impaired severely. Command and ability to fulfill mission to the Fleet. 2. If conversion to Open systems is not done, this Command will lose capability to communicate with other DoD activities that are

								,				
DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	CE CAP Dollare	TTAL PU	NCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	ICATION	Ī	et Sub	Budget Submission				
B Commont to	- 1					F 1 7 0	(3/ PE	Blaent	1130/3/ Fresident's Budget			
DON/DEPOT MAINT/WPNSTA/	is in each	Area/D TA/	ate	C. L.1.	ne. No l	Line. No & Description /Misc ADP Equip Rep	ton	D. Act	D. Activity Identification NAVAL ORDNANCE CENTER	entific CENTER	ation	
					SES < TOOK							
	FY 1994	7		FY 1995	100		20.					
ELEMENTS OF		77-00		1			rr 1996	٥		FY 1997	7	
COST	Quant Cost	Cost	Total	Ouant Cost		Total	1	Unit	Total			Total
AND POILTD					T	383	Maile COBE	COBC	COST	Quant Cost	Cost	Cost
11001							VAR		90			
			1									

This investment replaces aged ADP equipment that is beyond economical repair and will reduce downtime and maintenance. Examples of the types of ADP equipment purchased are an open systems environment database server and a digital document imaging system.

DEPOT MAINTENANCE CAPITAL PURCHASES (Dollars in Thousands)	NCE CAP Dollar	NCE CAPITAL PURCHASES (Dollars in Thousands		JUSTIFICATION	CATION	A.	Budget Submission FY96/97 President	nission ssident	Budget Submission FY96/97 President's Budget	17		
B. Component/Business Area/Date DON/DEPOT MAINT/WPNBTA/	usiness NT/WPNS	Area/Di TA/	a te	C. Line 26/VIDE 8B/PAC	. No O TEI 8 95/	Des	otion	D. AC	D. Activity Identification NOCPAC DIVISION, SEAL BEACH	lentific i, SEAL	ation BEACH	
	FY 1994			FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Ouant	Unit	Total
TELECOM EQUIP										न	310	310
Narrative Justification: Videoconference system w for the purpose of condu and activities.	ificati e syste e of co	il	ication: (Productivity) system will provide WPNS of conducting meetings,	1 ~ W	Seal Be	TA Seal Beach with closed circuit TV cameras and monitors conferences, symposiums, etc. remotely with other sites	closed siums,	1 circu etc.	it TV cameras remotely with	neras an with ot	and monitor other sites	tors
Video communications will allow the sites and Commands without travel. frequent meetings can take place mak	ations ands wi ngs can	ns will all without tr can take pl	llow the WPNSTA 8 travel. Problems place making all	WPNSTA Problem ing all	TA Seal Beac lems can be	r\	sh sites to communicate ef addressed more quickly an involved more productive.	ommunic re quic s produ	ate effectly and ctive.	effectively with and effectively.		other More
An economic and	analysis	was completed	pleted on	this	project	project and the	follor	wing in	following information is provided.	n is pro	vided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	TIME DISCOUNTE BAVINGS (\$000)	ED )	SAVINGS BEGINS	38	82	SAVINGS TO INVESTMENT RATIO (SIR)	(SIR)	TMENT	PE	PAYBACK		
	371		1998	86		2.18	æi		***	1.28		

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP Dollare	TTAL PU	NCE CAPITAL PURCHASES (Dollars in Thousands)	JUSTIF	CATION		get Sub	Budget Submission FY96/97 President'	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness NT/WPNS	Area/D TA/	ate	C. Lin 27/TL	Line. No & Desci TLM QUICK TDP W	Line. No & Description TLM QUICK TDP W	ption	D. Act	D. Activity Identification NWA DIVISION. CORONA	entific DRONA	ation	
	FY 1994	4		FY 1995	95		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant Cost	Unit Cost	Total	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Unit Cost		Total
TELECOM EQUIP							н	101	101		3800	1900

Narrative Justification: (New Mission)

capability of the quick-look station, giving it the capability to share the workload of surveying analog tapes, processing simultaneous real time telemetered sources, and adding modern analysis It will upgrade the Equipment is a telemetry data processor for the Telemetry Ground Station. display capabilities.

Command funding is the only Building 544 remote battle group exercise support requires additional simultaneous real time data enable this station to perform data acquisition, and improve its ability to handle upcoming high data rate missile telepacks, yielding more efficient data processing. Command funding is the on This equipment will source for this equipment since the Ground Station supports users with different sponsors. acquisition, analog tape surveys, and modern analysis display capabilities. cost savings are estimated at \$38,640.

	PITAL S	DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	JUSTIFI	CATION		et Sub	Budget Submission FY96/97 President	Budget Submission FY96/97 President/s Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	S Area, TA/	/Date	C. Lir	ODEN	Line. No & Description	otion	D. Act	D. Activity Identification	intific	ation	
PV 1004	70						NOCEAC	NOCEAC DIVISION, SEAL BEACH	SEAL	BEACH	
T	;  -		FX 1995	2		FY 1996	9		FY 1997	7	
ELEMENTS OF COST Quant	Quant Cost	Total	Ouant	Unit	Total	4	Unit	Total		Unit	Total
OFF THE CHAPTER						Kaaiic Cost	COST	COBT	Quant   Cost	Cost	Cost
SOFTWARE						H	156	156			
		- 7									

Narrative Justification: (New Mission)

diverse business information residing on POSIX/GOSIP compliant servers running on an open systems Off-the-shelf information manipulation software, storage, network connectivities, and associated data base software to implement Station information manipulation capability for utilization of

many different systems located at various sites to create data views necessary to make timely, high from many locations into the data views required for decision making, and to do this transparently. The most efficient processing. Managers at Seal Beach will need the capability to extract and manipulate data from DoD, Navy, and/or NAVSEA are consolidating major business applications to large sites for batch architecture is to provide, on local servers, software that has the capability to assemble data Off-the-shelf software and associated hardware components must be compatible with the local quality business decisions to manage Fleet support operation most effectively. environment as well as the larger NAVSEA, Navy, and DoD environment.

If the system is not procured, managers and their support staff will spend inordinate amounts of time extracting and manipulating data from separate applications that may not be compatible or Quality and efficiency of Fleet support will suffer. consistent.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	MCE CAP Dollars	NCE CAPITAL PURCHASES (Dollars in Thousands	RCHASES ousands)	JUSTIFI	CATION		Budget Submission FY96/97 President	nission	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	isiness VT/WPNS	Area/D TA/	ate	C. Lin 29/NAV INFORM	ORDCEN	ine. No & Description AVORDCEN EXECUTIVE RMATION SYSTEM (EIS)	uc (	D. Act NOC HEA	D. Activity Identification NOC HEADQUARTERS	entific 8	ation	
	FY 1994	4		FY 1995	S		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost
SOFTWARE							VAR		1,500	VAR		006

Narrative Justification: (Productivity)

The EIS will also give The NAVORDCEN EIS will provide NAVORDCEN Management with the ability to pull key information from Collection, comparison, analysis and projection must be done manually. The EIS will overlay the existing systems and access selected data by which the management the ability to tailor or design special reports for comparisons in order to perform analyzed. The EIS will routinely and automatically collect and display HQ NAVORDCEN process critical performance of the NAVORDCEN corporate and division processes can be monitored and the host of existing supporting automated management information systems. Currently the indicators and highlight non-conforming processes for management attention. specific or additional analysis. This is a phased project. information exists in virtual islands.

downsizing, we must be proactive in identifying ways to provide top level managers with automated The EIS is vital to the NAVORDCEN mission and if not developed will have the Impact if not funded: Management data required by the NAVORDCEN currently resides on a group of NAVORDCEN will be severely hampered in performing its mission. In this era of infrastructure fragmented, independent management information systems. Without development of the EIS, the NAVORDCEN in a manual mode of assimilating the vast amount of decision making information. information tools.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS SAVINGS TO INVESTMENT PAYB SAVINGS (\$000) BEGINS RATIO (SIR)

1999

SACK

60

DEPOT MAINTENANCE (DOI		rat	PURCHASES J Thousands)	JUSTIFICATION	CATION	A. Budget FY96/9	et Subm /97 Pre	Budget Submission FY96/97 President's	's Budget			
B. Component/Business Ar DON/DEPOT MAINT/WPNSTA/	siness T/WPNS	Area/Date  TA/	ate	C. Line. 30/STOCKI SOFTWARE	No PILE	& Description ANALYSIS	tion	D. Act	D. Activity Identification NOC HEADQUARTERS	entific	ation	
	FY 199	94		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit	Total	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Ouant	Unit	Total
SOFTWARE DEVELOPMENT									360	VAR		373
Narrative Justification:	ficati		(Productivity)	ty)								
With the establishment of the NAVORDCEN as the single focal point for in- Navy's conventional ordnance, the Stockpile Analysis Group has the task of of the worldwide asset stockpile. Since the function of stockpile analysis processes exist to look at the total stockpile from this new perspective. Will have to be developed to combine, accumulate, assimilate, display and of data and data elements. Trends will be established and projections will if" scenarios to provide managers the appropriate and necessary informatic current and outyear stockpile decisions. This is a phased project.	lishmen lonal c le asse to lo devel a elem co prov	hment of the asset stockp, to look at the eveloped to elements. The provide manavar stockpile	shment of the NAVORDCEN bhal ordnance, the Stockp stasset Stockpile. Since to look at the total sto developed to combine, ac selements. Trends will provide managers the ap	DCEN as tockpile Since th 1 stockp e, accum will be he appro	the sine Analyshe function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function for the function function for the function for the function function for the function function for the function function function for the function functio	SEDCEN as the single focal point for in-s Stockpile Analysis Group has the task of Since the function of stockpile analysisal stockpile from this new perspective. The accumulate, assimilate, display and will be established and projections will the appropriate and necessary informatications. This is a phased project.	l point has the tockpile ew persi te, dist project ssary in	for in the task le analy spective aplay all the constitutions of the constant informatic.		ervice management of the assessing the adequacy is is new, none of the A number of application manipulate the plethora il be made based on "what on which to base	agement of the the adequacy none of the of applications the plethora based on "what it o base	
Impact if not funded: Without use of the and effectively perform the research, redownsizing and reduced budgets, it is in while still maintaining optimum Fleet retool in performing that analysis across automated tool, this function could not could be initiated.	unded: T performantaini intaini this	Withour the standard budge lug optimate analyse function	The standard of the standard o	this srevied imper readistrates the	his system, review and a imperative treadiness. Is the entire to be thorought	s system, the NAVORDCEN would not be all view and analysis of the total stockpill perative that Navy make the most cost adiness. This system would provide manthe entire spectrum of ordnance items. be thoroughly performed and incorrect items.	RDCEN of the make the wolum of or	total rependent total rependent processing the processing true rependent rep		e to efficative idective without inagement	to efficiently In this era of the choices its with a vita thout an of the choices	
An economic analysis was completed on	ılysis	was com	pleted or	th	project	is project and the	follo	ving in:	following information is provided.	is pro	vided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	SCOUNTE (\$000)	red ))	SAVINGS Begins	38 (8	83	SAVINGS TO INVESTMENT RATIO (SIR)	INVEST (SIR)	TMENT	PAY	PAYBACK PERIOD		
2,	2,714		1999			8 . 5				0.42		

DEPOT MAINTENANCE (Do)	ICE CAP Dollare	NCE CAPITAL PURCHABES (Dollars in Thousands)		JUSTIFICATION		A. Budget FY96/97	et Bubi /97 Pre	Submission President	Budget Bubmission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	ısiness II/WPNB	Area/Di TA/	ate	C. Line. No. 31/EXPAND (DEPARTMENT	0 -	£ Description 1 FOR SECURITY	tion URITY	D. Act NOCLANT	D. Activity Identifica NOCLANT DIVIBION, EARLE	Identification ION, EARLE	ation	
	FY 1994	7		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
MINOR												250
Marrative Justification:	ficati		(Productivity)	ty)								
The project is the 2,507 SF one story, the Security Depart office space and a	s the constistory, concident.	e construction of Y, concrete masons irtment. The constants a conference room.	on of a masonry constructor.	Te.	addition structure will enlar	addition to Building C-1 structure with red brick will enlarge the Pass and	to Building With red bri 'ge the Pass	fac fac	. I	existing Bui The facility ice, provide	lding is us addi	is a sed by Fional
The number of security personnel required at NWS Earle has incontently have been added. As a result, the space allocated to currently two personnel work in a trailer next to C-1. There that is category code. Also, there is 437 sf of unusa which brings the total space deficiency to 880 SF. This addit and ease the overcrowded condition at this facility. This additions, and department meetings to update personnel.	securit sen add sersonn s categ ne tota rercrow	y personed. As led work fory code il space ided condition the interest in the	of security personnel required at NWS Earle has increased over the been added. As a result, the space allocated to these personnel of personnel work in a trailer next to C-1. There currently exists this category code. Also, there is 437 sf of unusable space in the the total space deficiency to 880 SF. This addition will correct overcrowded condition at this facility. This addition will allow and department meetings to update personnel.	ifred a tiler number there ich to to to to to to to to to to to to to	d at NWS Earle h he space allocat r next to C-1. ere is 437 sf of to 880 SF. This is facility. Th	B Earle has increased over the eallocated to these personnel to C-1. There currently exists 437 sf of unusable space in the SF. This addition will correct lity. This addition will allowersonnel.	is increased ovid to these per there currently unusable space addition will saddition will	reased over these person currently ble space ion will dittion will	Du erel	years and security is deficient, a BFR deficiency partial basement; the space deficient for consolidation	and security ficient, R deficiency of ial basement space deficiency consolidation of	ity cy of nt ciency ion of
The construction of the addition will elincreasing the efficiency and response to morale and increase public perception of will persist decreasing efficiency and response to the contract of	on of terms of trease parceasi	he addi- ency and ublic pound of fi	ction of the addition will eliminate the overcrowded condition the efficiency and response time of the Security Department. increase public perception of NWS Earle. Without the addition t decreasing efficiency and response time.		iminate the ime of the S NWS Earle.	eliminate the overcrowded conditions in building C-1, time of the Security Department. It will also improof NWS Earle. Without the addition, overcrowded condiresponse time.	owded by Deparation	vercrowded conditions curity Department. It Without the addition,		in building C-1, there will also improve overcrowded conditions	<b>&gt;</b>	thereby e tions
An economic ans	analysis	WAS	completed on		project	this project and the	follo	wing in	following information	13	provided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	TIME DISCOUNTE SAVINGS (\$000)	) )	SAVINGS BEGINS	ន <u>័</u> ន	83	BAVINGS TO INVESTMENT RATIO (SIR)	(SIR)	TMENT	PA:	PAYBACK PERIOD		
	602		1999	6		3.41	1			3.45		

DEPOT MAINTENANCE (DOI		CAPITAL PURCHASES Lars in Thousands)	_	JUSTIFI	FICATION	A. Budget FY96/97	jet Subi 5/97 Pro	Submission President	Budget Submission FY96/97 President's Budget			
B. Component/Business Ar DON/DEPOT MAINT/WPNSTA/	usiness NT/WPNS	Area/Date	a t	C. Line. 32/EXPAN SECURITY	No D R-	£ Description 5, W/F	ption	D. Act	D. Activity Identification NOCLANT DIVISION, EARLE	entific N, EARI	sation	
	FY 199	74		FY 1995	5		FY 1996	9		FY 1997	71	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total	Quant	Unit	Total Cost
MINOR									260			
Narrative Justification:	ificati		(Productivity)	(ty)								
The addition will have an area of 700 SF of arms, expand the squad room for additibe constructed of concrete masonry blocks	ill hav d the s of con	tion will have an area expand the squad room ucted of concrete maso	area of 700 room for add	00 SF whaddition	which willonal locks with a r	ll provid Kers and Ged brich	provide	tional e stora and a c	which will provide additional office space for six master. onal lockers and provide storage space. The addition wil with a red brick face and a concrete slab foundation.	ace for The 1	re for six master The addition will to foundation.	aster n will n.
Building R-5, which has an area or waterfront area of NWE Earle has additional ships were homeported has also increased. The original would be calculated because there personnel responding to incidents	which has of NW ps were assed. lated bonding	R-5, which has an area of the area of NWS Earle has it ships were homeported increased. The original calculated because there responding to incidents			, was construity in activity the number of the security to 4 trips to waterfront.	was constructed in in activity since number of security he security building 4 trips to the waterfront.	scted in 19. school 1996 security por puilding the waterfi	1944 and hu 1990 when a 7 personnel 19 is no los	f, was constructed in 1944 and has never expanded.  If in activity since 1990 when a new pier was built the number of security personnel assigned to the wate the security building is no longer adequate. Savito 4 trips to the waterfront per night with security waterfront.	expandr was described to the transfer of the t	was built and two to the waterfront ate. Savings	The and two erfront ngs
The project will relieve overcrowded conditions in the waterfront security building. improve the efficiency and response time of the security department.	will relies efficiency	leve ove	re overcrowded and response t	conditities of	tions ir	in the waterfront se security department.	terfron 1epartm	t secur	ity build		It will	
An economic analysis was completed	alysis	Was com		on this	project and	t and the		wing in	following information	is	provided.	
LIFETIME DISCOUNTED SAVINGS (\$000)	TIME DISCOUNTE BAVINGS (\$000)	(ED)	SAVINGS BEGINS	8 8	8	BAVINGS TO INVESTMENT RATIO (SIR)	O INVES	THENT	PAY	PAYBACK PERIOD		
•	402		1998	m		2.55	ស			6.30		

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAP Dollare	NCE CAPITAL PURCHASES (Dollars in Thousands	RCHASES ousands)	JUSTIFI	CATION		get Subs	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget			l
<pre>B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/</pre>	usiness NT/WPNS	Area/D	ate	C. Lin 33/INS MAGAZI	TALL P	C. Line. No & Description 33/INSTALL PAVED ROADS IN MAGAZINE AREAS	ption Os in	D. Act NOCLAN	D. Activity Identification NOCLANT DIVISION, YORKTOWN	entific V, YORK	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total Cost	Unit Cost	Unit	Total	Unit	Unit	Total
MINOR CONSTRUCTION									200		280	200

| Narrative Justification: (Environ/Safety)

Install bituminous pavement on all earth covered roads in magazine areas.

Existing roads are earth covered and during severe weather suffer excessive damage. Roads washout, form ruts and potholes and become impassable. As a result the transportation of ordnance explosive materials becomes hazardous.

Installation of an asphalt bituminous surface would eliminate such problems and also reduce annual maintenance costs to keep roads in a safe condition.

DEDOM VITAMENTE												
DEFUT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	CE CAP Dollars	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES ,	JUSTIFI	CATION		let Sub	Budget Submission FY96/97 President	Budget Submission FY96/97 President/s Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	rainess	Area/Du ra/		C. Line. No & Desc 34/LIGHTNING PROTE VARIOUS LOCATIONS	HTNING	Line. No & Description LIGHTNING PROTECTION LIOUS LOCATIONS	tion	D. Act	D. Activity Identification NOCLANT DIVISION, EARLE	entific N, EARI	ation	
	FY 1994	4		FY 199	5		700 A					
DI ENTENING OR							27 77			FY 1997	7	
COST	Quant Cost	Unit Cost	Total	Ouant	Unit	Total	1	Unit	Total	1	Unit	Total
MINOR					3	2007	Yuanc Cost	COBC	Cost	Quant Cost	Cost	Cost
CONSTRUCTION												240

Narrative Justification: (Environ/Safety)

The project provides a Class 3 open air storage lightning protection system for explosive laden railcars in the classification yard. The proposed work will include the installation of approximately fifty two (52) lightning protection masts connected to a secondary ground girdle.

this project NWS Earle will comply with both the NAVSEA grounding and lightning protection handbook and Chapters 5 and 6 of OP-5 and the National Fire Protection Agency standards. This project will By completion of The project requirement is based on an explosives safety effort to insure that all NAVSEA installations have grounding test plans for each explosives storage facility. cancel the Production Buildings portion of CNO Waiver WPNSTA Earle 1-90.

This project will assure continued explosives storage safety by the implementation of a grounding test plan and compliance with governing NAVSEA guidelines.

DEPOT MAINTENANCE CADIMAT PITTOTICAL	GAN TON	10.1					l	I			1	1
)	Dollar	(Dollars in Thousands)	usands)	JUSTIFI	CATION		jet Sub	Budget Submission FY96/97 President	Budget Submission FY96/97 President's Budget			
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	isiness VT/WPNS	Area/Da TA/	ate	C. Lin 35/PRI PIER 3	HARY GE	Line. No & Description /PRIMARY GROUNDING - ER 3	ption_	D. Act	D. Activity Identification NOCLANT DIVISION, EARLE	entific N, EARI	ation	
	FY 1994	4		FY 1995	5		FV 1996	,		200		
Fr. Eurenme Op		7.7 - 3.0								1667 73		
COST	Quant Cost	Unit	Total Cost	Unit Ouant Cost		Total	4	Unit	Total	(		Total
MINOB					1	2000	Vualit COBT	COBC	COST	Quant Cost	Cost	Cost
CONSTRUCTION												280

Narrative Justification: (Environ/Safety)

The project provides for providing a primary grounding system to protect existing Pier 3. The project will provide for the installation of lightning protection masts, primary girdle, and grounding plates. The primary system will be tied to the secondary system.

Presently, Pier 3 does not have an adequate primary grounding system. Pier 3 currently does not have lightning protection masts and does not provide adequate protection for safe ordnance This project will cancel the operations (Pier 3 is the ordnance loading/offloading pler). Production Buildings portion of CNO Waiver WPNSTA Earle 1-90.

Without the primary grounding system, ordnance operations on Pier 3 would continue at great risk and in violation of OP-5 criteria. Completion of the project will provide adequate protection against lightning strikes on Pier 3.

DEFOT MAINTENANCE CAPITAL PURCHASES JUSTII (Dollars in Thousands)	NCE CAP Dollar	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES (usands)	JUSTIF	FICATION A.		et Subi	Budget Submission				
						7.50	121 6	STORUC	tion/of tresident's budget			
b. component/Buginess Area/Date DON/DEPOT MAINT/WPNSTA/	isiness T/WPNS	Area/Dara/A	a te	C. Li	OVIDE SI	C. Line. No & Description 36/PROVIDE SECONDARY GROUNDING - DIED 3		D. Act	D. Activity Identification NOCLANT DIVISION, EARLE	entifica, EARL	ation	
						1						
	FY 1994	7		FY 1995	55		100 t A4					
							0667 13			FY 1997	7	
COST COST	Quant Cost	Unit	Total	, c	Unit	Total		Unit	Total		Unit	Total
a Onto				7.1.2	2002	COSC	Quant Cost	Cost	Cost	Quant Cost	Cost	Cost
CONSTRUCTION									280			
							-					

Narrative Justification: (Environ/Safety)

includes providing ordnance, static, and building grounds. A secondary girdle and grounding plates The project provides for a secondary grounding system to protect existing Pier 3 the project

This This project will provide adequate secondary grounding protection for Pier 3 operations. Pier 3 is an ordnance loading/offloading pier and requires an adequate grounding system to provide safe operations. project will cancel the Production Buildings portion of CNO Waiver WPNSTA Earle 1-90. Pier 3 has been identified as having inadequate secondary grounding system.

The project will improve safety by providing an up to date secondary grounding system on Pier 3.

DEFOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CA	PITAL PI 8 in Th	(Dollars in Thousands)	JUSTIFI	CATION		Jet Sub	Budget Submission	l		1	1
B. Component/Business Area/Pate	Usines	Aros /				FIN	197 Pr	esident	riyb/97 President's Budget			
DON/DEPOT MAINT/WPNSTA/	NT/WPN	TA/	Jace	C. Lin	INKLER	Line. No & Description SPRINKLER SYSTEMS/FIRE	otion FIRE	D. ACT	D. Activity Identification NOCLANT DIVISION	entific	ation	
				A PARTIES					010111	", EARL	র্	
	PY 1994	4		PV 100								
FT EVENING OF				25.7	0		FY 1996	9		100		
FLEHENIS OF		Unit	Total		11211					7667 23	,	
TSOO	Quant Cost	Cost	Cost	Ought Cost		Total		Unit	Total		IIn it	Batha
MINOR					+	COST	Quant Cost	Cost	Cost	Quant Cost	Cost	Total
CONSTRUCTION												2001
												210
Narrative Justification:	ficati		(Environ/Safeta	Cotes								
			מפ /ווס דד	Tack)								

The sprinkler system will be a dry pipe The proposed project provides for installing fire sprinkler systems and fire alarms in the following Buildings: C-2, C-14, C-15, C-16, C-21, C-31. system with sprinkler heads.

The buildings provide for shop, maintenance, supply, and administrative functions. Sprinklers and alarms will improve the safety conditions in these buildings. This project will bring these bidgs into compliance with National Fire Prevention Association (NFPA) codes and NAVFAC Instr 11320. Fire sprinkler and alarm systems are required in the above buildings.

Installation of the sprinkler and alarm systems will bring the buildings up to current safety

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION A. (Dollars in Thousands)	NCE CAL Dollar	NCE CAPITAL PURCHASES (Dollars in Thousands)	RCHASES Jusands)	JUSTIFI	CATION		let Subi	Budget Submission Fyg6/97 President				
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/	usiness VT/WPNS	Area/D	ate	C. Lir 38/Mis	fisc Minor	Line. No & Description Misc Minor Construction	tion	D. Act	oription D. Activity Identification NAVAL ORDNANCE CENTER	entific CENTER	ation	
					CMD							
	FY 1994	94		FY 1995	35		FY 1996	•		100		
ELEMENTS OF		10-14								FI 1997	,	
COST	Quant Cost	Cost	Cost	Ought	Unit	Total	4	Unit	Total		Unit	Total
MINOD	:					2000	Kaane Cose	COBC	COST	Quant Cost	Cost	Cost
CONSTRUCTION							VAR		335			

Narrative Justification: (Replacement)

removate building C-9 for public works, construction. Examples of these projects include: building construct inert storage buildings and replace guard shacks. This line funds the minor construction and the minor construction portion of projects which are a combination of Maintenance and Repair and minor construction.

DEPOT MAINTENANCE (Dol				JUSTIFI	FICATION	A.	et Subm /97 Pre	Budget Submission FY96/97 President's	s Budget		0	
B. Component/Business Ar DON/DEPOT MAINT/WPNSTA/	siness IT/WPNS	3 Area/Date 3TA/	a te	C. Line. 39/Misc Prod Ite	No Mino	& Description r Construction	tion	D. Act	D. Activity Identification NAVAL ORDNANCE CENTER	entific SENTER	ation	
	FY 199	74		FY 1995	5		FY 1996	<b>V</b> O		FY 1997	7	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
MINOR							VAR		570			
Narrative Justification:	ficati		(Productivity)	ty)								
The projects identified provide incresthese projects include: construct car 30, construct 3200 SF warehouse B-419	lentifi includ 200 BF		provide increased construct car was rehouse B-419 and	ased wash and	infrastruc facility construct	ย	ture support to for vehicles and utility building	the equ B-3	he stations. equipment, r B-311.	<u>Q</u>	Examples of lace building	f ing B
An economic analysis		was com	completed on	the	se projects	cts and the		owing i	following information		is provided.	<b>.</b>
PROJECT			LIFETIME D BAVINGS	DISCOUNTED 18	NTED	SAVINGS BEGINS	88	SAVINGS RATIC	INGS TO INV RATIO (SIR)	TO INVESTMENT (8IR)		PAYBACK Period
Car Wash Facili Replace Buildir Construct 3200 Construct utili	S # 6 S	-30 warehouse building	2,164 1,625 1,625 293			1997 1996 1996 1996	L 9 9		22.64 4.18 21.31 2.67			6.0 6.73 6.22

# FY 1995 DBOF Capital Program Reconcilliation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget b.) Disposition of project: cancellation, deferral and/or substitution c.) Explanation for cancellation or deferral and substitution
  - - Explanation for cancellation or deferral and substitution

DEFERRALS, CANCELLATIONS, SUBSTITUTIONS		•
NAVAL ORDNANCE CENTER (\$ in 000)		
Other Depot Maintenance - WPNSTA Yorktown a. Non-ADPE & Telec. Equipment/Magazine Moveable Aisle Storage Rack	\$725	
<ul> <li>b. Cancellation and (Non-ADPE &amp; Telec. Equip) Substitution</li> <li>c. Cancelled due to Congressional reductions to DBOF capital program.</li> </ul>	<b>£13</b>	
Other Depot Maintenance - NWADIV Corona  a. Non-ADPE & Telec. Equipment/P-171 Non-ADP Equipment  b. Reduction/deferral	\$76	
c. Project was reduced from \$172 to \$76 due to Congressional reductions to DBOF capital program, with \$96 deferred to FY 96.		
Other Depot Maintenance - WPNSTA Concord  2. ADPE & Telec, Equipment/DMRD 924 Mignation to OSE  b. Reduction	\$5,455	,
Project was reduced from \$9480 to \$5455 due to Congressional reductions to DBOF capital program.		
Other Depot Maintenance - WPNSTA Earle ADPE & Telec. Equipment/CAD Workstation  B. Reduction	\$73	
<ol> <li>Project was reduced from \$75 to \$73 due to Congressional reductions to DBOF capital program.</li> </ol>		

**\$** 

b. Reduction/deferral
 c. Project was reduced from \$1,025 to \$ 601 due to Congressional
 reductions to DBOF capital program, with \$340 deferred to FY 96.

Other Depot Maintenance - NWADIV Corona

a. ADPE & Telec. Equipment/P-171 ADP Equipment

s.

000257

# FY 1995 DBOF CAPITAL PURCHASES 18, CANCELLATIONS, SUBSTITUTIONS

## CE CENTER 20)

\$824

\$101

NAVAL ORDNANCE (\$ in 000
<ul> <li>ADT E. a. I elect. Equipment I elephone system Replacement</li> <li>B. Reduction</li> <li>C. Project was reduced from \$1,446 to \$824 due to Congressional reductions to DBOF capital program.</li> </ul>

7. Other Depot Maintenance - NWADIV Corona	a. ADPE & Telec. Equipment/TLM Quick TDP	b. Deferred	c. Project has been deferred to FY 96 due to Congressional reductions	to DBOF capital program.
7.		_	•	

EE.		
offai proc		
BOF CAL		
<b>9</b>		

teal Beach		**
PNSTA 8		
t Maintenance - M	elf Software	uction
960	ff the Shelf	eferred/red
8. Other [	Ö	م ۵

Project has been deferred to FY 96 due to Congressional reductions to DBOF capital program and reduced in cost from \$188 to \$156 ن ئم

# FY 1995 DBOF Capital Program Reconcilliation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
  - b.) Disposition of project: cancellation, deferral and/or substitution
     c.) Disposition of related funding
    - Disposition of related funding

## PEFEDDAL & CANCELLATIONS SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

	DEFERMALS, CANCELLATIONS, SUBSTITUTIONS  FUNDING DISPOSITION  NAVAL ORDNANCE CENTER  (\$ m 000)	STITUTIONS TON
<del>-</del>	<ol> <li>Other Depot Maintenance - WPNSTA Yorktown</li> <li>Non-ADPE &amp; Telec. Equipment/Magazine Moveable Alsie Storage Rack</li> </ol>	\$725
	b. Cancellation and (Non-ADPE & Telec. Equip) Substitution c. N/A. Obligational authority and TOA removed by Congressional action.	<b>£113</b>
<b>6</b> i	<ol> <li>Other Depot Maintenance - NWADIV Corona</li> <li>Non-ADPE &amp; Telec. Equipment/P-171 Non-ADP Equipment</li> <li>Reduction/deferral</li> <li>N/A. Obligational authority and TOA removed by Congressional action.</li> </ol>	\$76
ი 00020	<ol> <li>Other Depot Maintenance - WPNSTA Concord</li> <li>ADPE &amp; Telec. Equipment/DMRD 924 Migration to OSE</li> <li>Reduction</li> <li>NA. Obligational authority and TOA removed by Congressional action.</li> </ol>	\$5,455
50 4	<ul> <li>Other Depot Maintenance - WPNSTA Earle</li> <li>a. ADPE &amp; Telec. Equipment/CAD Workstation</li> <li>b. Reduction</li> <li>c. N/A. Obligational authority and TOA removed by Congressional action.</li> </ul>	\$73
40	5. Other Depot Maintenance - NWADIV Corona	

## \$824 a. ADPE & Telec. Equipment/P-171 ADP Equipment b. Reduction/deferral c. N/A. Obligational authority and TOA removed by Congressional action. a. ADPE & Telec. Equipment/Telephone System Replacement Other Depot Maintenance - WPNSTA Yorktown

\$601

b. Reduction
 c. N/A. Obligational authority and TOA removed by Congressional action.

Θ.

### DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION NAVAL ORDNANCE CENTER

(\$ in 000)

7. Other Depot Maintenance - NWADIV Corona

a. ADPE & Telec. Equipment/TLM Quick TDP

b. Deferred

c. N/A. Obligational authority and TOA removed by Congressional action.

8. Other Depot Maintenance - WPNSTA Seai Beach

a. Off the Shelf Software

Deferred/reduction

N/A. Obligational authority and TOA removed by Congressional action. ن ف

\$158

\$101

DEFENSE BUSINESS OPERATIONS FUND Marine Corps Depot Maintenance Summary of Operations Narrative

### Activity Group Functions:

The maintenance functions performed by the Marine Corps Depot Maintenance (MCDM) Activity Group include the return of unserviceable equipment to a serviceable condition through depot level overhaul, rebuild, modification and Inspect and Repair Only as Necessary (IROAN) of all types of ground combat and combat support equipment used by the Marine Corps and other Department of Defense (DOD) activities. Other functions include performance of related services such as maintenance, inspection, and preservation for in-storage base tactical stocks; quality control services; testing, repair and calibration of electrical, electronic, mechanical, radio and radar equipment. The Marine Corps depots provide calibration support for other military services under interservice support agreements, technical assistance and technical inspection services for Fleet Marine Force (FMF) and Marine Corps Reserve Units.

The mission of MCDM is to provide quality and responsive maintenance and maintenance support services to the FMF and other customers and to maintain a core industrial base to support mobilization and surge requirements. The primary customer of the MCDM is the Marine Corps. Other customers include the Navy, Army, Air Force, Coast Guard, Foreign Military Sales, and other government agencies.

### Activity Group Composition:

The Marine Corps Depot Maintenance Activity Group is comprised of two Multi-Commodity Maintenance Centers (MC3s) - one located at Albany, Georgia and the other at Barstow, California. The Marine Corps MC3s maintain virtually identical capabilities in order to provide support for Marine Corps operational units, depending on unit location.

### Budget Highlights:

Marine Corps Logistics Bases Depot Maintenance Business Plan
A major effort was recently completed to develop a Marine Corps
Logistics Bases Depot Maintenance Business Plan to streamline the
two Marine Corps Multi-Commodity Maintenance Centers, to better
serve our customers, and develop organizational structure that
will serve the Department of Defense (DOD) and usher the Marine
Corps through the beginning of the 21st century. The Business
Plan was developed with the involvement of a broad segment of
management and has been expanded to where it currently enjoys the
support of the entire work force and unions. Its implementation
requires a total revamp of business practices and a
reorganization of both activities.

The implementation of the Marine Corps Business Plan began in October 1994 and will require at least a three year transition period before the plan will be fully implemented. This budget submission reflects initial changes resulting from this plan. The plan impacts the Marine Corps by improving responsiveness/flexibility, and most importantly, the plan impacts all the depot customers by improved communication and product quality through continuous process improvement.

More specifically, the objectives of the Business Plan are to align responsibility/authority/resources for cost, quality, and schedule; bring authority and responsibility closer to the provider of products; improve accountability; remove obstacles which limit capabilities; work for better satisfaction of customer needs; eliminate duplication of functions; minimize process delays; streamline and improve the decision making process; ensure teamwork at all levels; eliminate unnecessary inspections, reports, and projects; maximize agility and responsiveness; and foster total quality leadership (TQL).

### Hawk Missile Workload

The transition of the Hawk Missile workload from Marine Corps Logistics Base (MCLB), Barstow to the Army at Letterkenny in FY 1996 will have minimal impact on the Marine Corps as it relates to core and capacity utilization. The shop floor space formerly utilized by the Hawk Missile workload will be utilized to support other core related work.

### Interservicing Workload

The MCLB Barstow was selected by a joint U.S. Navy/Coast Guard panel to rebuild the Paxman 16RP200M Valenta diesel engine. project began in FY 94 and will continue through FY 1996. addition, the Marine Corps is upgrading the complete night vision sight family to a near hybrid configuration to include assets for the Marine Corps and 3,700 night sights for the Army. Further, the Marine Corps has begun painting Army helicopters, which is additional interservice work over that submitted in the FY 1995 President's Budget. These services, plus many more, hold promise of significant additional workload for the Marine Corps. The Marine Corps interservicing strategy is to continue to interservice its weapon systems when the best value for core maintenance and repair for contingency support requirements is available through an interservicing option. Currently, the Marine Corps interservices approximately ten percent of Marine Corps' depot level maintenance workload.

### Civilian and Military End Strength and Workyears

As new orders decline, manning levels will decline.

Additionally, supplemental funding received in prior years is being worked off; therefore, carryover levels will be declining

in FY 95 through FY 97. This translates into a reduction of overtime hours and temporary employees.

<u>FY 94</u>	-Actuals	FY 95	FY 96	<u>FY 97</u>
Civilian End Strength	2,150	2,049	1,804	1,744
Total Civilian Workyears	2,164		1,709	1,744
Military End Strength Total Military Workyears	17	20	20	20
	35	20	20	20

The level of effort for the Marine Corps Depot Maintenance direct labor hours will decline approximately 36.2% from FY 95 to FY 97. In FY 94, the MCDM worked 2,910,854 direct labor hours. Overtime levels are maintained in FY 95 in response to high carryover and increased Congressional funding for reduction of equipment maintenance backlog. Overtime then declines. Military personnel remain constant at 20 end strength.

### Unit Cost, Customer Revenue Rate and Customer Rate Changes:

Unit cost for this business area is based on total costs and direct labor hours. Unit cost increases 4.3% from FY 94 to FY 95, 7.3% from FY 95 to FY 96, and 2.4% from FY 96 to FY 97. This is due to fixed costs not declining as rapidly as direct cost and workload. The customer revenue rate increases 34.3% in FY 1995 to recover prior year losses and pay for a surcharge for the Joint Logistics System Center. This rate declines 10.2% in FY 1996 after the one-time increase in FY 1995. The change between FY 1996 and FY 1997 is due primarily to inflation.

	FY 94	FY 95	FY 96	FY 97
Unit Cost Percent Change	\$62.20	\$66.49 4.3%	\$70.93 6.7%	\$72.62 2.4%
Customer Revenue Rate	\$57.66	\$77.46	\$69.57	\$72.16
(for rate purposes) Percent Change		+34.3%	-10.2%	+3.7%
Direct Labor Hours (000	s) 2,911	2,898	2,003	1,848

### Cost of Goods Sold:

Total costs increase 6.4% from FY 94 to FY 95 and decrease 26.2% in FY 96 and 5.5% in FY 97 due to decreases in workload.

	<u>FY 94</u>	FY 95	FY 96	FY 97
Cost of Goods Sold (Millions)	\$181.0	\$192.7	\$142.1	\$134.2

Due to the increase in environmental compliance and safety

issues, the Marine Corps depots are in the midst of increasing their staff within the Environmental/Safety Office. In order to cut hazardous waste generation, creative techniques such as building a recycling plant for wastewater are being adopted. Savings will be realized from the recycling plant as soon as the recycling plant is fully operational.

### Performance Measure Indicators:

<u>Measure</u>	<u>Goal</u>	FY 94	FY 95	FY 96	<u>FY 97</u>
Schedule Conforma Quality Deficience		97.5%	100%	100%	100%
Reports Net Operating Res	0.0%	0.4% 11.1	0.0% 19.7	0.0% 9.5	0.0% 0.0

### Accumulated Operating Results (AOR):

This budget submission reflects a projected AOR gain of \$19.7 million in FY 95 and \$9.5 million in FY 96. FY 96 and FY 97 reflects a zero AOR balance.

	<u>FY 94</u>	<u>FY 95</u> (Millions)	<u>FY 96</u>	<u>FY 97</u>
Net Operating Results AOR	\$11.1	\$19.7	\$9.5	\$0.0
	-\$29.2	- \$9.5	\$0.0	\$0.0

### Capital Budget:

The total Marine Corps depot maintenance capital investment authority consists of \$6.0 million in FY 95, \$3.9 million in FY 96 and \$6.4 million in FY 97. The budget reflects a reduction from the FY 95 President's Budget due to a change in the expense/investment threshold from \$25 thousand to \$50 thousand, but is offset by the transfer of certain ADP equipment from the Joint Logistics Systems Center. The increase in FY 1997 is due to the purchase of a terra-aqua system, which is being procured for pollution prevention.

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY MARINE CORPS DEPOT MAINTENANCE REVENUE AND EXPENSES

### (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	192.4	214.6	152.7	135.3
Operations	188.0	208.5	147.7	130.2
Capital Surcharge	0.0	2.2	1.1	1.1
Depreciation except Maj Const	4.4	3.9	3.9	4.0
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	192.4	214.6	152.7	135.3
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	0.6	0.7	0.7	0.7
Salaries and Wages:				
Military Personnel	1.3	1.0	1.0	1.1
Civilian Personnel	97.2	96.0	76.1	77.5
Materials, Supplies and				
Parts used in Operations	54.1	62.3	39.9	33.1
Facility Repair Charge	2.2	2.6	2.3	2.4
Depreciation - Capital	4.4	3.9	3.9	4.0
Contracted Engineering Services	1.6	1.1	1.0	1.1
Lease Costs	0.0	0.0	0.0	0.0
Purchased Utilities	4.0	4.1	4.0	4.0
Purchased Communications	0.3	0.2	0.2	0.2
Equipment Maintenance	1.4	1.2	1.0	1.0
Fuel	0.3	0.3	0.3	0.3
Other Expenses	13.6	19.3	11.6	8.9
Total Expenses	181.1	192.7	142.1	134.2
Operating Result	11.3	21.9	10.6	1.1
Less Capital Surchg Reservation	0.0	2.2	1.1	1.1
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(0.2)	0.0	0.0	0.0
Net Operating Result	11.1	19.7	9.5	0.0
Prior Year AOR	(40.4)	(29.3)	(9.5)	0.0
Accumulated Operating Result	(29.3)	(9.5)	(0.0)	0.0

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY

### MARINE CORPS DEPOT MAINTENANCE

### SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 106.6	<u>FY 1995</u> 159.0	FY 1996 150.5	FY 1997 137.7
a. Orders from DoD Components	95.5	141.5	129.0	111.1
Department of the Navy	73.5	130.4	128.9	111.1
Operations and Maintenance, Navy	0.1	0.1	0.1	0.1
Operations and Maintenance, Marine Corps	56.6	123.7	123.4	106.1
O&M, Navy Reserve	0.0	0.0	0.0	0.0
O&M, Marine Corps Reserve	0.7	2.8	2.3	2.2
Aircraft Procurement, Navy	0.0	0.0	0.0	0.0
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	0.0	0.0	0.0	0.0
Other Procurement, Navy	0.0	0.0	0.0	0.0
Procurement, Marine Corps	15.5	3.8	3.1	2.6
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.5	0.0	0.0	0.0
Military Construction, Navy	0.0	0.0	0.0	0.0
Other Navy Appropriations	0.0 0.0	0.0	0.0	0.0
Other Marine Corps Appropriations		0.0	0.0	0.0
Department of the Army	21.4	11.1	0.0	0.0
Army Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Other	0.0 21.4	0.0 11.1	0.0 0.0	0.0 0.0
Army Other				
Department of the Air Force	0.0	0.0	0.0	0.0
Air Force Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Air Force Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Air Force Procurement Accounts Air Force Other	0.0 0.0	0.0	0.0	0.0
		0.0	0.0	0.0
DoD Appropriated Accounts	0.6	0.0	0.2	0.0
Base Closure and Realignment	0.0	0.0	0.0	0.0
Operation & Maintenance Accounts Res, Dev, Test & Eval Accounts	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
Procurement Accounts	0.0	0.0	0.0	0.0
DoD Other	0.6	0.0	0.2	0.0
b. Orders from DBOF Business Areas	10.6	17.3	21.3	26.3
c. Total DoD	106.1	158.7	150.3	137.5
d. Other Orders	0.6	0.3	0.2	0.2
Other Federal Agencies	0.5	0.2	0.2	0.1
Trust Funds (including FMS)	0.0	0.0	0.0	0.0
Non Federal Agencies	0.1	0.0	0.0	0.1
2. Carry-In Orders	211.6	126.9	71.3	69.1
3. Total Gross Orders (available funding)	318.2	285.9	221.8	206.8
4. Carry-Out Orders	125.8	71.3	69.1	71.5
Change in Backlog (carry-out less carry-in)	(85.8)	(55.6)	(2.2)	2.4
5. Total Gross Sales	192.4	214.6	152.7	135.3

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
MARINE CORPS DEPOT MAINTENANCE
February 1995
(\$ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1996</b>	Price Growth	Program & Other Changes	Cost of Operations FX 1997
Military Personnel Compensation	1,342	9	(330)	1,018	24	(1)	1,041	30	21	1,092
Civilian Personnel Compensation	97,180	1,003	(3,610)	94,573	1,917	(20,423)	76,067	2,290	(838)	77,519
Travel	979	6	87	722	11	(13)	720	10	(32)	869
Material & Supplies - Commercial	15,590	437	3,709	19,736	592	(7,555)	12,773	383	(2,299)	10,857
Material & Supplies - from DBOF	38,838	5,935	(497)	44,276	(5,742)	(11,088)	27,446	2,299	(6,807)	22,938
Other Intrafund (DBOF) Purchases	2,300	478	(350)	2,428	(505)	1,077	3,000	192	(292)	2,900
Transportation	0	0	0	0	0	0	0	0	0	0
Capital Investment Depreciation	4,429	0	(525)	3,904	0	(5)	3,899	0	80	3,979
Other Purchases	20,757	168	5,115	26,040	1,359	(10,292)	17,107	513	(3,403)	14,217
Total Operating Budget * *Includes Reimbursements	181,062	8,036	3,599	192,697	(2,344)	(48,300)	142,053	5,717	(13,570)	134,200

### CHANGES IN THE COSTS OF OPERATION DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE

	EXPENSES
FY 1994 ACTUALS	181.1
1 1 1994 AUTUALO	101.1
FY 1995 ESTIMATE IN PRESIDENT'S BUDGET	164.5
PRICING ADJUSTMENTS:	0.5
A. PAY ADJUSTMENT 0.5	
PRODUCTIVITY INITIATIVES AND	
OTHER EFFICIENCIES:	-1.1
A. SAVINGS - STANDARDS, IMPROVED RESPONSE TIMES	
AND PROCESS IMPROVEMENTS -1.1	
PROGRAM CHANGES:	28.8
A. CIVILIAN PERSONNEL COSTS 9.6 B. MATERIAL & SUPPLIES 6.6	
C. OTHER PURCHASES -23.2	
D. DEPRECIATION EXPENSE 1.3	
E. CAPITAL THRESHOLD CHANGE 0.4	
F. CONGRESS BACKLOG REDUCTION 34.1	
FY 1995 CURRENT ESTIMATE	192.7
PRICING ADJUSTMENTS:	-2.9
A. FY 1996 PAY RAISE 1.5	2.0
B. ANNUALIZATION 0.4	
C. MATERIAL CHANGES	
STOCK FUND - NONFUEL -5.4	
D. OTHER PURCHASES - 0.6	
PRODUCTIVITY INITIATIVES AND	
OTHER EFFICIENCIES:	-1.2
A. SAVINGS - STANDARDS, IMPROVED RESPONSE TIMES -1.2	1.2
AND PROCESS IMPROVEMENTS	
PROGRAM CHANGES:	-46.6
A. CIVILIAN PERSONNEL COSTS -20.4	
B. MATERIAL & SUPPLIES -17.6 C. OTHER PURCHASES -10.2	
C. OTHER PURCHASES -10.2 D. REDUCTION IN ARMY WORKLOAD -10.4	
E. BACKLOG REDUCTION 12.0	
2. 5/10/12/04 (1.25/04/10)	
FY 1996 CURRENT ESTIMATE	142.0
·	
PRICING ADJUSTMENTS:	5.1
A. FY 1997 PAY RAISE 1.8 B. ANNUALIZATION 0.5	
B. ANNUALIZATION 0.5 C. MATERIAL CHANGES	
STOCK FUND - NONFUEL 2.3	
D. OTHER PURCHASES 0.5	
PROGRAM CHANGES:	-12.9
A. CIVILIAN PERSONNEL COSTS -0.8	
B. MATERIAL & SUPPLIES -9.1 C. OTHER PURCHASES -3.0	
C. OTHER PURCHASES -3.0	
FY 1997 CURRENT ESTIMATE	134.2

				Peaceti	me
	/	Total	Mobilization	Operating	Other
1.	Materiel Inventory BOP	14.0	0.0	14.0	0.0
2.	BOP Reclassification Changes	0.0	0.0	0.0	0.0
3.	Price Changes	0.0	0.0	0.0	0.0
4.	Receipts from Commercial Sources	46.6	0.0	46.6	0.0
5.	Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6.	Gross Sales	48.0	0.0	48.0	0.0
7.	Materiel Inventory Adjustments A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
	B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
	C. TRANSFERS TO PROP. DISP. (-)	0.0	0.0	0.0	0.0
	D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
	E. OTHER (list)	0.0	0.0	0.0	0.0
	F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8.	Materiel Inventory EOP A. ECONOMIC RETENTION (memo) B. POLICY RETENTION (memo) C. POTENTIAL EXCESS (memo) D. OTHER (memo)	12.6	0.0	12.6	0.0
9.	Materiel Inventory on Order EOP (memo)	3.2	0.0	3.2	0.0
	Lot (memo)	٦.٤	0.0	2.2	0.0

		•		Peaceti	me
	,	Total	Mobilization	Operating	Other
1.	Materiel Inventory BOP	12.6	0.0	12.6	0.0
2.	BOP Reclassification Changes	0.0	0.0	0.0	0.0
3.	Price Changes	0.0	0.0	0.0	0.0
4.	Receipts from Commercial Sources	50.7	0.0	50.7	0.0
5.	Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6.	Gross Sales	53.2	0.0	53.2	0.0
7.	Materiel Inventory Adjustments				
	A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
	B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
	C. TRANSFERS TO PROP. DISP. (-)	0.0	0.0	0.0	0.0
	D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
	E. OTHER (list)	0.0	0.0	0.0	0.0
	F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8.	Materiel Inventory EOP A. ECONOMIC RETENTION (memo) B. POLICY RETENTION (memo) C. POTENTIAL EXCESS (memo) D. OTHER (memo)	10.1	0.0	10.1	0.0
9.	Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0

			•	Peaceti	me
	,	Total	Mobilization	Operating	
1.	Materiel Inventory BOP	10.1	0.0	10.1	0.0
2.	BOP Reclassification Changes	0.0	0.0	0.0	0.0
3.	Price Changes	0.0	0.0	0.0	0.0
4.	Receipts from Commercial Sources	34.7	0.0	34.7	0.0
5.	Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6.	Gross Sales	34.9	0.0	34.9	0.0
7.	Materiel Inventory Adjustments				
	A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
	B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
	C. TRANSFERS TO PROP. DISP. (-)	0.0	0.0	0.0	0.0
	D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
	E. OTHER (list)	0.0	0.0	0.0	0.0
	F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	
8.	Materiel Inventory EOP A. ECONOMIC RETENTION (memo) B. POLICY RETENTION (memo) C. POTENTIAL EXCESS (memo) D. OTHER (memo)	9.9	0.0	9.9	0.0
9.	Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0
	LOT (MGMO)	۷.5	0.0	4.5	0.0

	,	Total	Mobilization	Peaceti	me Other
				operating	orner
1.	Materiel Inventory BOP	9.9	0.0	9.9	0.0
2.	BOP Reclassification Changes	0.0	0.0	0.0	0.0
3.	Price Changes	0.0	0.0	0.0	0.0
4.	Receipts from Commercial Sources	29.7	0.0	29.7	0.0
5.	Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6.	Gross Sales	29.7	0.0	29.7	0.0
7.	Materiel Inventory Adjustments				
	A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
	B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
	C. TRANSFERS TO PROP. DISP. (-)	0.0	0.0	0.0	0.0
	D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
	E. OTHER (list)	0.0	0.0	0.0	0.0
	F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8.	Materiel Inventory EOP A. ECONOMIC RETENTION (memo) B. POLICY RETENTION (memo) C. POTENTIAL EXCESS (memo) D. OTHER (memo)	9.9	0.0	9.9	0.0
9.	Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0

1			DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE SUMMARY OF CAPITAL PURCHASES	FENSE BUSINESS OPERATIONS FU ARINE CORPS DEPOT MAINTENANC SUMMARY OF CAPITAL PURCHASES	BEFENSE BUSINESS OPERATIONS FUN MARINE CORPS DEPOT MAINTENANCE SUMMARY OF CAPITAL PURCHASES	e	1 1 1 1 1 1 1	; 1 1 1 1 1 1 1 1		1
			DOLLARS	DOLLARS IN MILLIONS	SNC					
			FY 1994 ESTIMAT	FY 1994 ESTIMATE	FY 1995 ESTIMAT	FY 1995 ESTIMATE	FY 1996	FY 1996 ESTIMATE	FY 1997 ESTIMAT	FY 1997 ESTIMATE
LINE		ITEM DESCRIPTION	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL	QUANTITY	TOTAL
 	1.4.	EQUIPMENT PURCHASES OVER \$500K	—-		—		t ————————————————————————————————————	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1
		REPLACEMENT (BORE JIG) PRODUCTIVITY NEW MISSION (TERRA-AQUA) Subtotal		т. т.	0	0.0	0	0.0	н на	0.6 3.1
	11B.	1B. EQUIPMENT >\$50K <\$500K		<b></b>						
004 005 006		REPLACEMENT PRODUCTIVITY NEW MISSION Subcotal	4 S Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	0 0 0 0 1 4 . 0 6	12	4.00 2.00 1.00 1.00	8 8	1.2	8 T T D D T D D D D D D D D D D D D D D	00.3
	10.	1C. INFO MGT EQUIPMENT > \$100K								
0007		REPLACEMENT PRODUCTIVITY NEW MISSION (DATA SYSTEMS HARDWARE) Subtotal	0	0.0		2.2		0.2	0	0.0
	<u>1</u> 1	1D. INFO MGT EQUIPMENT >\$50K <100K			,					
010 011 012	SUBT	REPLACEMENT PRODUCTIVITY NEW MISSION Subtotal SUBTOTAL ALL EQUIPMENT CATEGORIES	0   17	0.0	0 61	0.0	13	0.0	0 0 12	0.0

			FY 1997 ESTIMATE	TOTAL	4.6		5	. H 60		0.0			0.0	6.4	
1			FY 1 EST1	QUANTITY	12		4	- OT		0			0	22	
			FY 1996 ESTIMATE	TOTAL	1.9		c 4	2.0		0.0			0.0	3.9	
			FY 1996 ESTIMAT	QUANTITY	13			9 6 7		0			0	25	
	M		FY 1995 ESTIMATE	7 1995 STIMATE	TOTAL	4.9		0.8	0.3		0.0			0.0	6.0
DEFENSE BUSINESS OPERATIONS FUND	MARINE CORPS DEPOT MAINTENANCE SUMMARY OF CAPITAL PURCHASES	SNC		QUANTITY	19		7	H 80		0			0	27	
SINESS OPE	ARINE CORPS DEPOT MAINTENANC: SUMMARY OF CAPITAL PURCHASES	DOLLARS IN MILLIONS	FY 1994 ESTIMATE	TOTAL	2.6			0.5		0.0			0.0	3.1	
DEFENSE BU	MARINE CO SUMMARY	DOLLAR	FY EST	QUANTITY	17			,		0			0	24	
				ITEM DESCRIPTION	SUBTOTAL ALL EQUIPMENT CATEGORIES	2. MINOR CONSTRUCTION >\$50K <\$300	REPLACEMENT PRODUCTIVITY	NEW MISSION Subtotal	3A. SOFTWARE >\$100K	REPLACEMENT PRODUCTIVITY NEW MISSION Subtotal	3B. SOFTWARE >\$50K <\$100K	REPLACEMENT PRODUCTIVITY	NEW MISSION Subtotal	TOTAL	
! ! 				LINE			013	_015		016 017 018		020	021		

DEFENSE BUSINESS OPERATIONS FUND MALINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)				
A. BUDGET SUBMISSION			 	; ; ;
B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV 1A. EQUIPMENT PURCHASES OVER \$500K (REPLACEMENT)   MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	ent)			
	FY 1996 ESTIMATE		FY 1997 ESTIMATE	EL .
QTY	UNIT   TOTAL COST   COST	L QTY	COST	TOTAL
EQUIPMENT PURCHASES GREATER THAN \$500K	i i i i i i i	<u> </u>		
BORING MACHINE: JIG, VERTICAL			932	635
NARRATIVE JUSTIFICATION:				
THE BORING MACHINE, JIG, VERTICAL, IS A REPLACEMENT ITEM AND WILL REPLACE A 48 YEAR OLD MACHINE.  THIS MACHINE IS REQUIRED FOR EXTREMELY CLOSE TOLERANCE WORK ON TOOLS, DIES, AND FIXTURES FOR PRODUCTION SUPPORT OF VIRTUALLY EVERY COMMODITY WORKED BY THE MAINTENANCE CENTER. IT IS REQUIRED FOR CLOSE TOLERANCE REPAIR AND FRABRICATION OF COMPONENTS OF MANY DIFFERENT PIECES OF EQUIPMENT SUCH AS ANTENNA PEDESTAL BASES FOR THE HAWK MISSILE SYSTEM  AN ECONOMIC ANALYSIS WAS PERFORMED THAT SHOWED AN ANNUAL SAVINGS OF \$13,296.	ACHINE, FOR PRODUCTION AIR AND FRABE SYSTEM	ON SUPPOF	U OF VIR	TUALLY NENTS

DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)	 					
A. BUDGET SUBMISSION					! ! ! !	:  -  -  -  -  -
B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV   1A. EQUIPMENT PURCHASES OVER \$500K (NEW MISSION) MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	M MIS	NOIS				
		FY 1996 ESTIMATE			FY 1997 ESTIMATE	i i i i
	QTY	UNIT	TOTAL	XIQ	UNIT	TOTAL
EQUIPMENT PURCHASES GREATER THAN \$500K						
TERRA-AQUA ENVIRONMENTAL SYSTEM					2,500	2,500
		—- <u>-</u>				
NARRATIVE JUSTIFICATION:		 	! ! !		1	
MARCORLOGBASES STRATEGIC PLAN CALLS FOR IMPROVED INDUSTRIAL AND PERFORMANCE PROCESSES TO ACHIEVE MAXIMUM REDUCTION OF HAZARDOUS MATERIALS AND EXPLOIT ALL OPPORTUNITIES FOR POLLUTION PREVENTION. THE TERRA-AQUA SYSTEM MUST BE PROCURED IN FY 97 TO MEET THIS GOAL. THIS SYSTEM REQUIRES FROM 12 TO 18 MONTHS TO INSTALL AND MUST BE OPERATIONAL BY FY 99 TO COMPLY WITH MAXIMUM AVAILABLE CONTROL TECHNOLOGY REQUIRED BY AIR CONTROL ACT AMENDMENTS.	ES TO TERR? MUST E	ACHIEVE AQUA S E OPERA	YSTEM MUSTIONAL BY	REDUCT ST BE F	TON PROCURED TO	IN

DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)					
A. BUDGET SUBMISSION			!	; ; ; ;	
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY   1B. EQUIPMENT >\$50K <\$500K (REPLACEMENT) MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	(1)				
	FY 1996 ESTIMATE	96 ATE		FY 1997 ESTIMATE	. M
	QTY   UNIT	TOTAL   COST	OTY	COST	TOTAL
REPLACEMENT EQUIPMENT GREATER THAN 50K AND LESS THAN \$500K		1,245	ω		i,095
NARRATIVE JUSTIFICATION:					
FUNDING WILL BE USED TO PROCURE REPLACEMENTS FOR OUTDATED, UNUSABLE AND UNSAFE ITEMS OF EQUIPMENT THAT ARE NECESSARY TO SUSTAIN THE MISSION OF THE MC3'S.	OF EQUIPM	ent that a	RE NECE	SSARY TO	0
REPLACEMENT ITEMS FOR FY 96 INCLUDE: AS21-A COUNTER CALIBRATION SYSTEM, AUTOPRESS CALIBRATION SYSTEM, BRAKE, PRIMARY FREQUENCY STANDARD, MILLING MACHINE, SIGNAL GENERATOR AND OFF AXIS TARGET PROJECTOR.	LIBRATION RGET PROJE	SYSTEM, 23 CTOR.	O TON H	230 TON HYDRAULIC PRESS	PRESS
REPLACEMENT ITEMS FOR FY 97 INCLUDE: DUST COLLECTOR, AIR CONDITIONER FOR SHOP 732, SYNTHESIZED SIGNAL GENERATOR, ELEC   OPTICS TEST STATION, COMPUTER AIDED GRAPHICS SYSTEM, KPS003 TEST BENCH, DRILLING MACHINE, AUTOMATIC LASER TEST SYSTEM   AND NETWORK ANALYZER.	ANTHESIZED HINE, AUTO	SIGNAL GE	NERATOR R TEST	, ELECTRO SYSTEM	2

DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)	A. BUDGET SUBMISSION	T GRP/ACTIVITY   1B. EQUIPMENT >\$50K <\$500K (PRODUCTIVITY)	FY 1996   FY 1997   ESTIMATE   ESTIMATE	QTY UNIT TOTAL QTY UNIT TOTAL COST COST COST COST COST COST	RETRIEVAL SYSTEM	A TIME STUDY INDICATED THAT DIRECTED EMPLOYEES SPENT AT LEAST 7% OF THEIR TIME ACCOMPLISHING NON-PRODUCTIVE, INDIRECT TASKS, I.E. LOOKING FOR PARTS, MOVING PARTS, ETC. IMPLEMENTATION OF THIS SYSTEM WILL REDUCE OR ELIMINATE THIS NON-PRODUCTIVE TIME. OUR ESTIMATES CALL FOR A 3.2% INCREASE IN PRODUCTIVITY BASED ON A LOSS OF 3200 HOURS PER YEAR LOOKING FOR LOST ITEMS OR MISPLACED ITEMS. INVESTING IN THIS SYSTEM WILL ENABLE THE MAINTENANCE CENTER TO REBUILD MORE EQUIPMENT WITHOUT INCREASING LABOR COSTS AND REDUCE DIRECT MATERIAL AND OVERHEAD EXPENSES BY IMPROVING INVENTORY ACCURACY AND ENSURING THAT PARTS ARE AVAILABLE FOR JOBS AS NEEDED.
DEFENSE MARINE MARINE COR	A.	<u></u>			AUTOMATED STORAGE AND RETRIEVAL SYSTEM	NARRATIVE JUSTIFICATION:  A TIME STUDY INDICATED THAT DIRECTED EMPLOYEES:  I.E. LOOKING FOR PARTS, MOVING PARTS, ETC. IMPOUR ESTIMATES CALL FOR A 3.2% INCREASE IN PRODUM ISPLACED ITEMS. INVESTING IN THIS SYSTEM WILL LABOR COSTS AND REDUCE DIRECT MATERIAL AND OVERNAVALLABLE FOR JOBS AS NEEDED.

FUND/ACT GRP/ACTIVITY INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL FUND/ACTIVITY INDUSTRIAL FUND/DEPOT MAINT INDUSTRIAL	HINDUSTRIAL ENDIANCE GREVACTIVITY  BINE CORPS INDUSTRIAL FUNDANCE GREVACTIVITY  BINE CORPS INDUSTRIAL FUNDANCE GREVATIVITY  AN SIGN AND LESS THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THAN \$500K  AN SIGN AND THA	DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)					
RINGUSTRIAL FUND/ACT GREY/ACTIVITY RING CORPS INDUSTRIAL FUND/ACT GREY/ACTIVITY RING CORPS INDUSTRIAL FUND/DEPOT MAINT WESTON EDGIT FOR THE STILL THE PROCURED FOR VARIOUS SHOPE IN THE MAINTENANCE CENTERS. THESE LABOR SAVING TAXONOWENER. THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTRACES FOR HAZARDOUS MATERIALS AND THE SUBSTRACE TO BE STILL CALLOW MORE EFFICIENT AND SEPECTIVE UTILIZATION OF PERSOUNCES.  THE DIAGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKFLANES (NESTS) FOR CIRCUIT CARDS.  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE COULDMENT FOR FY 97 INCLUDES:  WE SHOULD MAINTENANCE FOR FAILED MAINTENANCE FOR MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED MAINTENANCE FOR FAILED	HINDUSTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/DEPOT MAINT  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACTIVITY  HENDISTRIAL FUND/ACT GRP/ACT  HENDISTRIAL FUND/ACT GRP/ACT  HENDISTRIAL FUND/ACT GRP/ACT  HENDISTRIAL FUND/ACT GRP/ACT  HENDISTRIAL FUND/ACT GRP/ACT  HENDISTRIAL FUND/ACT  HENDISTRIAL				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		t t
NT GREATER HAN \$500K  TION:  Y 96 INCLUDES: THIS ITEM HILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS. THESE LABOR SAVING MORE BFFICIENT AND FFFECTIVE UTILIZATION OF PERSONNEL RESOURCES. THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND FANDETS. THIS STEM IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865 THE SOUTHWENT IS USED IN SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL FFFECTS (E3)  Y 97 INCLUDES:  W MASSURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL FFFECTS (E3)  FINANCY THIS THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL FFFECTS (E3)	NAT GREATER HAN \$500K  TION:  "THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTRANCE FOR HAZARDOUS MATERIALS AND TRANTS.  "SESTIMATE TOTAL OTTS THE STEEL THE STEEL ST	INDUSTRIAL FUND/ACT GRP/ACTIVITY RINE CORPS INDUSTRIAL FUND/DEPOT MAINT					
NAT GREATER HAN \$500K  TION:  Y 96 INCLUDES: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS. THESE LABOR SAVING MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES. THIS ITEM IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE RDS. THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865 THESE STATES THE EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865 THE SB 3865 THE SHOLDES: THE SULPMENT IS USED IN SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (B3) THE SB 3865 THE SHOULDES:	NT GREATER HAN \$500K  TITON:  "Y 96 INCLUDES: THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND THAN SULTED IN SULPEORT OF THE ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND THAN SULTED IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  "Y 97 INCLUDES:  "Y 9		FY 1996 ESTIMATI	ш	FY	1997 IMATE	!
HAN \$500K  HAN \$500K  TION:  Y 96 INCLUDES:  THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS. THESE LABOR SAVING MORE EFFICIENT AND EFFECTIVE UTLIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND THANTS.  TSANTS.  Y 97 INCLUDES:  Y 97 INCLUDES:  Y 97 INCLUDES:  Y 97 INCLUDES:  HE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  THE SULPMENT SUPPORTS THE BLECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (B3)  ST 100 IN ANALYZING, DIAGMOSTING FINE BLECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (B3)  ST 100 IN ANALYZING, DIAGMOSTING FINE SULPMENT SUPPORTED.	HAN \$500K  TION:  "Y 96 INCLUDES: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS. THESE LABOR SAVING MORE EFFICIENT AND EFFECTIVE UTLIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND THANTS.  "ESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  "AGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  "Y 97 INCLUDES:  "A MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (E3)  SI USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.		i ———	TOTAL		<u> </u>	OTAL SST
TION:  Y 96 INCLUDES:  TRIEVERS: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS.  MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAITANTS.  THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865 SAGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  Y 97 INCLUDES:  TA MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS IN ANALYZING DIABANG METER SHOOT ENGLISHED.	TION:  'Y 96 INCLUDES:  'Y 96 INCLUDES:  'TRIEVERS: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAINTENANTS.  THIS EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS SUBSTANCES FOR HAZARDOUS MAINTES.  THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  TANTS.  "Y 97 INCLUDES:  "Y 97 INCLUDES:  "N 97 INCLUDES:  "Y 97 INCLUDES:  "	NEW MISSION EQUIPMENT GREATER THAN 50K AND LESS THAN \$500K	4	490			150
Y 96 INCLUDES:  TRIEVERS: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAITANTS.  THIS EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS EFFICIENT AND THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAITANTS.  THIS EQUIPMENT IS USED IN SUPPORT OF THE ANALYZES BACKPLANE AND THE SB 3865  THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  TO INCLUDES:  THE MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS IN ANALYZED.	Y 96 INCLUDES:  Y 96 INCLUDES:  THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAINTENANTS.  THIS EXPLEMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  TANTS.  THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  Y 97 INCLUDES:  THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTAL MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.						
Y 96 INCLUDES:  THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS.  MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MAITANTS.  TESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865.  AGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  TO 1 INCLUDES:  THE MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS IN ANALYZING AND AND FOR SOUTHWENDERS.	Y 96 INCLUDES:  MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATTANTS.  THIS EPPICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATTANTS.  TESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  Y 97 INCLUDES:  THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTA MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	NARRATIVE JUSTIFICATION:					
MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATTANTS.  THIS EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS BOUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  TAGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  Y 97 INCLUDES:  THE BOUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTA ANALYZING, DIARNOSTING PROPERSON WITH COMMANDER PETERS.	MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.  THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATTANTS.  TESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  TAGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  "Y 97 INCLUDES:  "A MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	NEW EQUIPMENT FOR FY 96 INCLUDES:					
THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIAL TANTS.  "ESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  "AGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  "Y 97 INCLUDES:  "A MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (E3	THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIAL TANTS.  "ESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865  "AGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  "Y 97 INCLUDES:  "A MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (E3 USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	CI	INTENANCE CE		THESE LABO	R SAVING	ניז
EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865.  IL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  IS:  SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL BFFECTS (E3).  ANYTHOL DIABNOSTMENDONINE-SHOOTING BROBE EME WITH COMMANDED FOR ENVIRONMENTAL.	EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865.  IL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.  IS:  SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (E3)  IALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	THIS ITEM IS USED ITANTS.	CES FOR HAZA	RDOUS MAT	ERIALS AN	Ð	
SS: SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS MAYATHAC DIRECTEMENT SUPPORTER DEDORTERS WITH COMMINER ENVIRONMENTAL	S: SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS NALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	S	NE AND THE SI . CIRCUIT CARI	B 3865 DS.	THE	SB 3865	
SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS	SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS MALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.	NEW EQUIPMENT FOR FY 97 INCLUDES:					
II IS USED IN AMBLICING DIAGNOSTING IKOODEE-SHOOIING		SYSTEM: THIS EQUIPMENT SUPPORTS THE IALYZING/ DIAGNOSING/TROUBLE-SHOOTING	ENVIRONMENT	AL EFFECT IPMENT.			

								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)	RATIONS FUN MAINTENANCE RCHASES PRO SHEET USANDS)	D GRAM					,	
A. BUDGET SUBMISSION	SSION							
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY 1C. INFO MGNT EQUIPMENT > \$100K (NEW MISSION) MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	QUI PMENT >	\$100K (NE	M MISSI	ON)	 		1 1 1 1 1	? ! ! ! !
	FY EST	FY 1995 ESTIMATE		FY 1996 ESTIMATE	E E	: : : :	FY 1997 ESTIMATE	 
	QTY UN	UNIT TOTAL COST COST	QTY	COST	TOTAL	OTY	COST	TOTAL
INFORMATION MGNT EQUIP > \$100K		2,831	 		235	<b>-</b>		
NARRATIVE JUSTIFICATION:		! ! ! !	! ! !					

THESE FUNDS ARE TO SUPPORT THE FIELDING OF THE DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) BEING DEVELOPED BY THE JOINT LOGISTICS DURING RECENT REVIEWS, THE RESPONSIBILITY FOR ACQUISITION OF SYSTEMS CENTER (JLSC) FOR MARINE CORPS MAINTENANCE DEPOTS. DUR! HARDWARE WAS TRANSFERRED FROM THE JLSC TO THE MILITARY SERVICES.

OVER THE PAST TWO YEARS, THE JLSC, WORKING WITH THE SERVICES HAS EVALUATED THE BUSINESS PROCESSES OF THE DEPOTS, INVESTIGATED ALTERNATIVE MAINTENANCE MANAGEMENT CONCEPTS AND REVIEWED THE SERVICES LEGACY ENVIRONMENT, DEPOT AIS DEVELOPMENT
EFFORTS AND COMMERICALLY AVAILABLE SYSTEMS. THESE EFFORTS HAVE SUSTAINED THE NEED TO MODERNIZE THE PLATFORMS AND HARDWARE
REPRESENTED BY THIS SUBMITTAL, BUT HAVE NOT IDENTIFIED SPECIFIC EQUIPMENT REQUIREMENTS FOR THE MARINE CORPS. THE IDENTIFICATION OF APPROPROPRIATE EQUIPMENT, MAKE, MODEL, AND INSTALLATION DATE ARE JLSC INITIATIVES AND ARE NOT AVAILABLE. OBLIGATION IS DEPENDENT ON APPROVAL/RELEASE OF FUNDS FROM JLSC AND DISA.

INFRASTRUCTURE UPON WHICH TO MAKE SIGNIFICANT STRIDES IN BUSINESS PROCESS IMPROVEMENT. BENEFITS WILL BE REALIZED IN TWO PRIMARY AREAS: BUSINESS PERFORMANCE AND INFORMATION SYSTEMS COSTS. BUSINESS PERFORMANCE WILL BE ENHANCED THROUGH THE PROCESS DMSS WILL PROVIDE THE SERVICES A REVOLUTIONARY STEP FORWARD IN FUNTIONAL CAPABILITY AND AUTOMATION, INCLUDING A SYSTEMS IMPROVEMENT DELIVERED BY DMSS APPLICATIONS TO SUPPORT THE DEPOT MAINTENANCE IMPROVED FUNCTIONAL BASELINE (IFB).

## THESE IMPROVEMENTS INCLUDE:

SHORTER CYCLE TIMES THROUGH BETTER PLANNING AND MANAGEMENT INFORMATION TO CONTROL OPERATIONS IMPROVED SCHEDULE PERFORMANCE THROUGH MORE COMPLETE ASSET VISIBILITY REDUCED OVERHEAD THROUGH AUTOMATION AND THE ELIMINATION OF NON VALUE-ADDED ACTIVITY REDUCED INVENTORIES THROUGH IMPROVED PLANNING AND TRACKING REDUCED LABOR THROUGH BETTER RESOURCE AND WORK PLANNING

WITHOUT THIS INVESTMENT, NEEDED IMPROVEMENTS TO THE DEPOT BUSINESS PROCESS AND INFRASTRUCTURE WILL NOT BE ACHIEVED.
IMPLEMENTING ENHANCED REPAIR AND OVERHAUL CAPABILITIES IS A CRITICAL CONTRIBUTION TOWARD IMPROVING MISSION READINESS IN A
DOWNSIZING ENVIRONMENT. AS THE DOD WEAPON SYSTEMS CONTINUE TO AGE, REDUCTIONS TO THE WORKFORCE CONTINUE AND THE NUMBER OF
DEPOTS ARE REDUCED, EFFICIENT AND EFFECTIVE ORGANIC REPAIR CAPABILITY IS OF INCREASINGLY GROWING IMPORTANCE TO DOD IN MAINTAIN WEAPON SYSTEMS COMBAT READINESS. IN ORDER TO MEET THIS DEMAND, THE DEPOT COMMUNITY NEEDS TO DRASTICALLY STRENGTHEN ITS BUSINESS PROCESSES AND THE ASSOCIATED INFORMATION INFRASTRUCTURE (HARDWARE).

ONCE IMPLEMENTATION IS COMPLETE, AND LEGACY APPLICATIONS ARE REDUCED OR ELIMINATED, ADP COSTS WILL DECLINE MARKEDLY.

DEFENSE BUSINESS OPERATIONS FUND MARINE CORPS DEPOT MAINTENANCE MARINE CORPS CAPITAL PURCHASES PROGRAM JUSTIFICATION SHEET (DOLLARS IN THOUSANDS)	A. BUDGET SUBMISSION	B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV   2. MINOR CONSTRUCTION >\$50K <\$300K (ALL CATEGORIES)   MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	FY 1996 FY 1997 ESTIMATE ESTIMATE	QTY UNIT FOTAL OF COST COST COST COST COST COST	MINOR CONSTRUCTION  GREATER THAN 50K  AND LESS THAN 300K	NARRATIVE JUSTIFICATION:  THE FOLLOWING PROJECTS ARE VITAL TO OUR CONTINUING EFFORT TO PROVIDE A MORE EFFICIENT AND SAFE WORKPLACE.  * CONSTRUCT STORAGE BUILDING AT RADAR SHOPS FOR WORKLOAD AND TESTING OF RADAR SYSTEMS REQUIRED TO PROTECT PERSONNEL AND GOVERNMENT PROPRETY.  * CONSTRUCT A MAINTENANCE PACILITY TO PROVIDE BETTER RESPONSE AND REPAIR TO A WIDE VARIETY OF PRODUCTION RELATED MACHINERY.  * CONSTRUCT ADMIN FACILITY TO CENTRALLY LOCATE ALL MANAGEMENT SERVICES.  * CONSTRUCT NEW PAINT BOOTHS.  * CONSTRUCT NEW PAINT BOOTHS.  * CONSTRUCT RIRE BOTTLE STATION  * CONSTRUCT LAV TEST STAND - THIS SHOP IS REQUIRED TO MOVE BECAUSE THE NOISE LEVEL GENERATED BY THIS SHOP EXCEEDS THE EPA.
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# FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: MARINE CORPS DEPOTS

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.

### DEPARTMENT OF THE NAVY DEFENSE BUSINESS OPERATIONS FUND TRANSPORTATION - NAVY

### **ACTIVITY GROUP FUNCTION:**

The Military Sealift Command (MSC) has two major missions. One is as the Transportation Component Command (TCC) for sealift to the Commander in Chief, U.S. Transportation Command; the budget for this mission is included in the Transportation business area of the Defense Business Operations fund controlled by TRANSCOM. The second major mission is as the Navy Type Commander for a number of Service Unique vessels operated as Naval Fleet Auxiliary Force (NFAF) vessels, Special Mission Ships (SMS) and Navy Funded Preposition Forces (APF-N). NFAF provides support utilizing civilian manned non-combatant ships for material support, SMS provides unique seagoing platforms to the military services, and APF-N deploys advance material for strategic lifts. The justification material below is submitted in support of the Navy portion of MSC's transportation mission.

### **ACTIVITY GROUP COMPOSITION:**

Military Sealift command, headquartered in Washington, DC is composed of five commands located in Bayonne, New Jersey; Oakland, California; London, England; Yokohama, Japan and Washington, DC. In addition, MSC has three subarea commands in Norfolk, Virginia; Naples, Italy; Guam and eight port offices.

### **BUDGET HIGHLIGHTS:**

### Financial Profile:

		(\$ r	nillions)	
	FY 1994	FY 1995	FY 1996	FY 1997
Revenue	832.6	1,101.6	1,264.1	1,275.8
Expenses	720.6	1,120.8	1,237.3	1,257.4
Surcharge	-	-	14.6	18.4
Net Operating Result	111.9	-7.6	12.2	0
Prior Year Adjustments	232.6			
Accumulated Operating Resul	t -4.7	-12.2	0	0

### Naval Fleet Auxiliary Force

The Naval Fleet Auxiliary Force (NFAF) provides civilian manned noncombatant support ships to the U.S. Navy in the fields of underway replenishment of fuel, underway replenishment of stores and supplies, underway replenishment of ammunition, towing and salvage operations, and resupply of ballistic missiles. In addition, miscellaneous time charters are provided to support harbor tug requirements, deep submergence vehicle support/rescue requirements, and miscellaneous towing requirements. The NFAF continues to expand at a significant rate. From FY 1994 through FY 1997 the NFAF will convert two T-AFS 1 Class supply ships and five T-AE 26 Class ammunition ships and three T-ATS 1 Class salvage vessels to civilian marine operations. Additionally, during this period the NFAF will gain three T-AO 187 Class fleet

oilers from the new construction program. This budget also includes the transfer of three T-AGOS 1 Class undersea surveillance ships to other government agencies and the deactivation of three T-AGOS, the deactivation/transfer of three T-AO 187 Class fleet oilers, the deactivation of a T-AK Class fleet ballistic missile ship, the placement of two T-AO 187 Class fleet oilers in Reduced Operating Status (ROS) in FY 1994 through FY 1997, the placement of two T-AFS 1 Class fleet stores ships in ROS for portions of FY 1996 and FY 1997, and the activation and operation of two T-LKAs starting in FY 1996.

	FY 1994	FY 1995	FY 1996	FY 1997
<u>NFAF</u>				
Per Diem Days	15,638	14,823	14,612	15,757
Unit Cost	37,006	40,903	48,015	45,459
Customer Rate Changes			3.6%	0.5%
Performance Indicator:				
Ship Availability	96.1%	99.9%	99.9%	99.9%

### **Special Mission Ships**

Special Mission Ships (SMS) program provides support for various specialized scientific and technical missions: oceanographic research, missile tracking, oceanographic/hydrographic surveys and cable laying/repairing. From FY 1994 through FY 1997 the SMS program will deactivate three T-AGSs (survey), one T-AGM (missile range) and one T-ARC (cable). This is offset partially by the addition of three new construction T-AGSs and the chartering of a T-ASR (submarine rescue).

<u>FY 1994</u>	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
4,852	4,480	4,669	4,380
25,907	28,382	27,458	28,470
		9%	9.3%
98.9%	99.9%	99.9%	99.9%
	4,852 25,907	4,852 4,480 25,907 28,382	4,852 4,480 4,669 25,907 28,382 27,458 9%

### Afloat Prepositioning Force

The Navy portion of the Afloat Prepositioning Force (APF) transfers from the TRANSCOM budget to the Navy budget in FY 1995, as reflected in the FY 1995 President's Budget. The Navy portion of the APF consists of sixteen vessels located at strategic locations for rapid response to regional conflicts. There are two hospital ships (T-AHs) located in Baltimore, MD and Oakland, CA; thirteen Maritime Prepositioned Ships (MPS) located at Diego Garcia, Guam/Saipan and the Atlantic Ocean. Also included in this program is the fleet hospital ship STRONG VIRGINIAN. The support of the Medical Treatment Facility (MTF) on board the two hospital ships is included and treated as a reimbursable item, i.e., not part of the daily rate. The Pacific Fleet also funds support for Diego Garcia services (pusher tugs etc.) through

this program. This budget also assumes buyout of the shipowners' equity in one ship per year beginning in FY 1996, with funding to be provided from the National Defense Sealift Fund (NDSF) of approximately \$50 million per vessel. Expenses are computed based on this buyout occurring at mid-year of each fiscal year.

,	FY 1994	FY 1995	FY 1996	FY 1997
APF-N Per Diem Days Unit Cost Customer Rate Changes	-	5,840 63,836	5,856 66,581 17.8%	5,840 68,664 -0.4%
Performance Indicator: Ship Availability	-	99.9%	99.9%	99.9%
STAFFING:				
	<u>FY 1994</u>	FY 1995	<u>FY 1996</u>	FY 1997
Civilian				
End Strength	4,660	4,924	5,383	5,497
Workyears	5,319	5,044	5,185	5,386
Military				
End Strength	891	1,081	1,216	1,296
Workyears	880	1,071	1,147	1,207

Personnel growth from FY 1994 to FY 1995 is due primarily to the transfer of APF Navy unique ships from TRANSCOM and the addition of one T-AE. Growth from FY 1995 to FY 1996 supports the addition of two T-LKAs, two T-AEs, one T-ATS and full year operation of one T-AE. Increases from FY 1996 to FY 1997 are attributable to the addition of two more T-AEs, one T-ATS, and full year operation of two T-LKAs and two T-AEs.

### **HEADQUARTERS COSTS:**

	FY 1994	FY 1995	<u>FY 1996</u>	<u>FY 1997</u>
Headquarters	21.6	18.5	22.0	22.4

Increases in headquarters costs over the FY 1995 level are primarily attributable to inflation and centralization of certain ADP costs which were previously budgeted in the area field commands. It is anticipated that centralized management will result in savings through elimination of duplicative functions and from such things as volume discounts which are available by purchasing more items at one time.

### **CAPITAL PURCHASE PROGRAM:**

		(\$m	illions)	
	FY 1994	FY 1995	FY 1996	FY 1997
FY 1995 President's Budget	5.1	5.0		
Current Request	5.1	4.8	6.0	2.9

The majority of capital purchases to be incorporated are associated with information technology efforts, largely in support of the migration of ADP support from main frame to a client/server environment.

### DEPARTMENT OF THE NAVY TRANSPORTATION - NAVY REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	832.6	1,101.6	1,264.1	1,275.8
Operations	831.8	1,101.0	1,248.8	1,256.7
Capital Surcharge	0.0	0.0	14.6	18.4
Depreciation except Maj Const	0.7	0.5	0.7	0.7
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income				
Refunds/Discounts (-)				
Total Income	832.6	1,101.6	1,264.1	1,275.8
Expenses:				
Cost of Materiel Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	13.5	12.5	13.6	15.2
Salaries and Wages:				
Military Personnel	29.2	33.7	35.3	37.9
Civilian Personnel	246.4	250.5	264.8	282.9
Materials, Supplies and				
Parts used in Operations	40.8	41.2	48.7	45.5
Facility Repair Charge	1.0	0.0	0.1	0.1
Depreciation - Capital	0.7	0.5	0.7	0.7
Contracted Engineering Services	0.0	0.0	0.0	0.0
Lease Costs	66.6	206.0	218.5	216.1
Purchased Utilities	0.2	0.3	0.4	0.4
Purchased Communications	1.2	4.4	4.6	4.7
Equipment Maintenance	0.7	0.3	0.4	0.4
Fuel	57.6	89.4	96.1	103.7
Other Expenses	262.7	481.8	554.1	549.8
Total Expenses	720.6	1,120.8	1,237.3	1,257.4
Operating Result	111.9	(19.2)	26.8	18.4
Less Capital Surchg Reservation	0.0	0.0	14.6	18.4
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	232.6	11.6	0.0	0.0
Net Operating Result	344.6	(7.6)	12.2	0.0
Prior Year AOR	(349.2)	(4.7)	(12.2)	(0.0)
Accumulated Operating Result	(4.7)	(12.2)	(0.0)	0.0

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY TRANSPORTATION - NAVY SOURCE OF REVENUE

(Dollars in Millions)

1. New Orders	FY 1994 832.6	FY 1995 1,101.6	FY 1996 1,264,1	FY 1997 1,275.7
a. Orders from DoD Components	831.4	1,100.9	1,264.1	1,275.0
Department of the Navy Operations and Maintenance, Navy Operations and Maintenance, Marine Corps O&M, Navy Reserve O&M, Marine Corps Reserve Aircraft Procurement, Navy Weapons Procurement, Navy	815.1 795.2 1.6	1,087.0 1,028.0 0.0	1,247.4 1,112.3 0.0	1,259.1 1,156.7 0.0
Shipbuilding & Conversion, Navy Other Procurement, Navy Procurement, Marine Corps Family Housing, Navy and Marine Corps	14.3 0.6	52.3	129.3	96.1
Research, Development, Test & Eval, Navy Military Construction, Navy Other Navy Appropriations Other Marine Corps Appropriations	0.0 3.4	6.7	5.9	6.3
Department of the Army Army Operation & Maintenance Accounts Army Res, Dev, Test & Eval Accounts Army Procurement Accounts Army Other	0.2 0.2	0.0	0.0	0.0
Department of the Air Force Air Force Operation & Maintenance Accounts Air Force Res, Dev, Test & Eval Accounts Air Force Procurement Accounts Air Force Other	15.2 15.2	13.4 13.4	15.5 15.5	15.6 15.6
DoD Appropriated Accounts  Base Closure and Realignment	0.9	0.4	1.1	0.4
Operation & Maintenance Accounts Res, Dev, Test & Eval Accounts Procurement Accounts DoD Other	0.9	0.4	1.1	0.4
b. Orders from DBOF Business Areas	0.8	0.7	0.0	0.7
c. Total DoD	832.2	1,101.6	1,264.1	1,275.7
d. Other Orders Other Federal Agencies Trust Funds (including FMS)	0.4 0.4	0.0	0.0	0.0
Non Federal Agencies				
2. Carry-In Orders	48.2	48.2	48.2	48.2
3. Total Gross Orders (available funding)	880.8	1,149.8	1,312.3	1,324.0
4. Carry-Out Orders Change in Backlog (carry-out less carry-in)	48.2 0.0	48.2 0.0	48.2 0.0	48.2 0.0
5. Total Gross Sales	832.6	1,101.6	1,264.1	1,275.7

# Department of the Navy TRANSPORTATION - NAVY Summary of Price, Program and Other Changes (Operating Budget) February 1995

				(\$ in Thousands)	ısands)					
	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations <b>FX 1997</b>
Military Personnel Compensation	29,245	312	4,160	33,717	165	1,455	35,337	223	2,325	37,885
Civilian Personnel Compensation	246,366	8,099	(3,936)	250,529	5,677	8,565	264,771	7,469	10,618	282,858
Travel	12,092	268	(1,602)	10,758	215	689	11,662	252	1,013	12,927
Material & Supplies - Commercial	36,881	1,033	(1,854)	36,060	1,082	3,947.	41,089	1,233	(3,023)	39,299
Material & Supplies - from DBOF	61,461	858	32,279	94,598	5,355	3,784	103,737	2,240	3,929	109,906
Other Intrafund (DBOF) Purchases	6,119	(242)	(3,316)	2,561	(43)	229	2,747	144	(616)	2,275
Transportation	1,411	40	245	1,696	85	167	1,948	28	220	2,226
Capital Investment Depreciation	748		(211)	537		125	662		40	702
Other Purchases	326,322	9,137	354,846	690,305	20,709	64,309	775,323	23,260	(29,314)	769,269
Total Operating Budget * *Includes Reimbursements	720,645	19,505	380,611	1,120,761	33,245	83,270	1,237,276	34,879	(14,808)	1,257,347

### DEPARTMENT OF THE NAVY TRANSPORTATION - NAVY

### SUMMARY OF CHANGES IN OPERATIONS

(Dollars in Millions)

	Costs
FY 1994 Current Estimate	\$ <b>720.6</b>
FY 1995 Estimate in President's Budget	\$1,166.4
Pricing Adjustments:	
Civilian Personnel	1.7
Productivity Initiatives and Other Efficiencies:	
Waterman class contract renegotiation	(3.7)
Reduced manning on T-AFS 8 class ships	(0.7)
Lube oil analysis	(4.1)
SECNAV directed Overhead Efficiencies	(1.8)
Program Changes	
Exercise T-AH 19	1.6
SOSUS program changes	(12.4)
T-AH 20 operations	2.7
Add Two T-LKA's	34.1
Deactivate T-AOs 191/192	(34.0)
Delayed delivery of T-AGOS 24	(6.6)
Early deactivation of T-AK 286	(3.4)
Post Shakedown Availability for T-AFS 5 delayed	3.5
Extension of T-AO 190	5.3
Early deactivation of T-ARC 6	(11.1)
Early deactivation of T-AGS 40	(11.3)
Deferred FY 1994 availability for T-AGM 23	2.7
ROS 120 days vs FOS T-AGM 194	(4.4)
Deactivation of TAGS 45 (USNS Waters)	(9.0)
Deactivate 3 TAGOS, 1 TAGOS to ROS status	(11.8)
Other Changes:	
Direct reimbursable estimate	7.2
Increase for mandated projects (e.g.	
security, GCCS, etc)	3.6
Revised CPP threshold	0.2
Support of T-AE 26 class CIVMOD	4.3
CIVMAR OPS vs Contract T-AGSs 51/52	1.8
FY 1995 Current Estimate	\$1,120.8
Pricing Adjustments:	
Annualization of FY 1995 Pay Raise	3.4
FY 1996 Pay Raise	

Civilian Personnel	2.3 0.2
Military Personnel	5.3
DBOF Price Changes	22.0
General Purchase Inflation	22.0
Productivity Initiatives and Other Efficiencies:	
SECNAV directed Overhead Efficiencies	(1.8)
Maersk contract renegotiaion	(3.8)
Waterman contract renegotiation	(3.7)
Reduce manning on T-AFS 8 class ships	(0.8)
Lube oil analysis	(8.6)
Additional savings from Vibration Analysis program	(15.9)
Contract vs. Civilian Mariner operations of TAGS 60/61	(5.4)
Savings due to TAGS 51/52 transfer to CONOP	(1.8)
Savings due to 1AGS 31/32 transfer to Corvor	(1.0)
Program Changes:	
T-AVB operations	1.6
Sealift Enhancement Features (SEF) program	1.2
T-AE 32 on for full year	13.2
CIVMOD on T-AEs 35/27 less T-AE 32	33.5
CIVMOD on T-AFSs 1/6 less T-AFS 5	22.0
PSAs on T-AE 32 and T-AFS 5	7.7
Civilian Modification (CIVMOD) on a T-ASR	8.5
Addition of a T-ASR	4.4
Outfitting on T-AE 35/27 less T-AE 32	6.9
Activiation of T-AEs 35/27	6.3
Deactiviation of T-AO 190/188	7.3
Addition of T-AO 203/204	14.5
Addition of T-AGS 62	2.2
Full year OPS TAGS 60/61	5.3
Additional Sponsor Modifications	9.9
Annualize TAGS 45 deactivation (occurred in prior year)	(2.8)
Deactivation of TAG 33 in FY 1995	(6.9)
Deactivation of USNS BOLD (TAGOS 12)	(4.8)
ROS vs FOS T-AFS 1/5/6	(10.0)
Prior year deactivation of T-AO 187 and T-AGOS 17	(9.0)
ROS USNS ASSERTIVE	(1.7)
Exercise T-AH 19	(1.6)
Add crew costs for two T-LKA's partial year	3.6
One-time FY 1995 T-LKA activation cost not in FY 1996	(34.1)
Revised operating scenerio for T-AGM 23	(1.4)
Other Changes:	
Fuel (increased sea days)	4.7
Maintenance and repair	29.6
Military Expense	1.4
Depreciation	0.1
Interest Expense (Equity payment on MPS)	9.2
Travel for new ship programs	0.1

Replacement of ADPE	0.4
Ashore manning requirements	2.5
Revised CPP threshold	0.5
Purchase Financial Services from DFAS	0.8
FY 1996 Estimate	\$1,237.3
Pricing Adjustments:	
Annualization of FY 1996 Pay Raise	4.4
FY 1997 Pay Raise	
Civilian Personnel	3.1
Military Personnel	0.2
DBOF Price Changes	2.4
General Purchase Inflation	24.7
Productivity Initiatives and Other Efficiencies:	
Maersk contract renegotiaion	(6.1)
Waterman contract renegotiation	(3.8)
Reduce manning on T-AFS 8 class ships	(0.8)
Lube oil analysis	(8.6)
Additional savings from Vibration Analysis program	(14.2)
Workload Changes:	
CIVMOD on T-AFSs 1/6 FY96	(43.3)
CIVMOD two T-ATSs	8.5
PSA on T-AE 35/27 and T-AFS 1/6	16.7
T-AE 35/27 on for full year	31.5
Annualization of T-AO 188/190 deactivation in FY 1996	(9.0)
Three T-ATSs on for full year	13.5
T-AO 203/204 operating for a full year	9.2
Additional ship T-AGS 62	1.6
Inclusion of Sponsor Mods	1.0
Deactivation of TAG 194 (USNS Vanguard)	(11.6)
ROS vs FOS	(8.7)
Deactivation of T-ATF 169/166	(5.2)
Two T-LKA's operating for a full year	14.0
Other Changes;	
Fuel (additional sea days)	6.3
Maintenance and repair	(17.0)
Other	(0.7)
Interest Expense (Equity payment on MPS)	13.5
Increased ashore workyears	0.5
Overhead ADP costs	(2.0)
FY 1997 Estimate	\$1,257.4

(Dollars in Thousands)	PITAL Jars ii	INVESTMEI n Thousai	NT JUS	TIFICAT	ION		A. E	3UDGET SUI 16/1997 PI	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON	T - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	Area/D: /Trans	ate portation		C. Line	e No. &	& Item D LAN Items	Line No. & Item Description	uo	D. Activity ID	y ID
	ΕΥ	FY 1994		FY 1995	995	<u> </u>	FY 1996	96	FY 1997	997
ELEMENTS OF COST   Qty   Cost   Cost	Unit	Total   Cost	0ty	Qty   Unit Cost	Total	Qty	qty Cost	Total   Cost	Qty Cost	Total Cost
Software							Varies	670	Varies	353
Equipment			-				Varies	1,385	Varies	758
Total								2,055		1,111

The above represents MSC requirements to implement LANS at all offices, area commands, and headquarters.

Software includes such items as Oracle, Banyan,and Vines; equipment includes servers, micros, printers, etc. These are ongoing requirments as MSC continues to make use of ADP/IT applications.

NOO - L	y ID	1997	Total   Cost	400	400	
SUBMISSION PLANNING BUDGET	Activity ID	FY 1	Unit	Varies		
BMISS LANNI	0.		Qty			
A. BUDGET SUN FY 1996/1997 PI	uo	1996	Total Cost	400	400	which wolly.
A. B.	Jescripti	FY 19	Unit	Varies	o.	bilities be tota function
	tem [		Qty			s caps is to system etc.
NO	Line No. & Item Description Mobile Office	1995	Total   Cost			d Communications capabilities which would Mobile office is to be totally self to satisfy C3 system functionality. cros, INMARSAT, etc.
JUSTIFICATION )	C. Lin	 FY 1	Unit			nd Commu. Mobils to satisticros, I
· ·		-	0ty			ol, a Phort Fitie er, m
INVESTMENT J	te ortation	994	Total   Cost			d, Controcture supported that the support of the su
	Area/Da Id/Transp IL	FY 199	Unit			e Comman nfrastru no exter UPS, fa
REA C (Do	iness omman SIONA	<u> </u>	0ty			catio catio rice i
BUSINESS AREA CAPITAL (Dollars	Component/Business Area/Date ary Sealift Command/Transportation CONGRESSIONAL		ELEMENTS OF COST	ffices	Total	Narrative Justification:  Provides for complete Command, Control, and Comminclude all office infrastructure support. Mobic contained requiring no external facilities to sa Offices will include UPS, fax, printer, micros,
1 1 1 1 1 1	B. Com Military		ELEMEN	Mobile Offices		Narrat Narrat Prov inclu conti Offic

BUSI	BUSINESS AREA CAPITAL INVE	REA CA (Dol	PITAL lars i	INVESTMENT J n Thousands)	NT JUS	STMENT JUSTIFICATION ousands)	NOI.		A FY 19	A. BUDGET SUBMISSION Fy 1996/1997 PLANNING BUDGET - CON	BMISSI LANNIN	ON IG BUDGET	con
B. Component/Business Area/Date Military Sealift Command/Transport CONGRESSIONAL	nt/Bus lift Cc ONGRESS	iness ommand SIONAL	Area/D /Trans	 ate portation	 	C. Lin Intern	e No. & ational	Item C Mariti NMARSA	Descript me Sate T/Earth	C. Line No. & Item Description International Maritime Satellite COO2 INMARSAT/Earth Station	D.	D. Activity ID	OI /
 		! !	FΥ	FY 1994		FY 1	FY 1995		FY 1996	966	 	FY 1997	397
ELEMENTS OF COST	COST	Qty	Qty Cost	Total   Cost	Qty   C	Unit	Total   Cost	qty	Qty Cost	Total   Cost	Qty	Unit	Total
INMARSAT/Earth Station	th										2	Varies	131
To	Total										2		131
Narrative Justification	ustifi	catior	::				 	i    -	 	 	;   	i i i i i	 

To provide increased communication capabilities for ship to shore.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	EA CAPIT (Dollar	AL II s in	VVESTMEN Thousan	T JUST ds)	IFICAT	NOI		A. B	UDGET SI 6/1997 F	UBMISSI PLANNIN	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON	NOO - 1
B. Component/Business Area/Date Military Sealift Command/Transporta CONGRESSIONAL	ness Are	a/Datanspo	te ortation	     <del></del>	C002 & C003	C. Line No. & Item Description C002 & C003 TDMS	tem D TDMS	escripti	uo	<u> </u>	D. Activity ID	y ID
		FY 1994	994	       	FY 1995	995	 	FY 1996	96		FY 1997	997
ELEMENTS OF COST	Qty Cost Cos	it	Total Cost	Qty	Oty Cost	Total   Cost	Qty	Qty   Unit	Total Cost	Qty	Qty   Unit	Total   Cost
Software								Varies	20		Varies	20
Software Devel.								Varies	250		Varies	
Equipment								Varies	75		Varies	30
Total									375			80

The Technical Data and Management System (TDMS) provides CALS and industry compatibility. TDMS provides electronic storage, import, export, revision, reproduction, and distribution of MSC technical data for global engineering and logistics operations. It provides a secure physical archive and replaces the existing manual, labor intensive, paper based system that has a high risk of loss of critical material due to age and handling.

BUSINESS AREA CAPITAL INV (Dollars in T	REA C/ (Do]	APITAL Ilars i	INVESTMENT J	VT JUS	FESTMENT JUSTIFICATION housands)	NOI		 A FY 19	BUDGET SU 96/1997 P	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON	ET - CON
B. Component/Business Area/Date Military Sealift Command/Transpor CONGRESSIONAL	iness ommanc SSION	Area/E	Jate sportation		C. Line C003	No. &	Item [ Oftwar	Item Description Software Development	jon opment	D. Activity ID	ty ID
	<u> </u>	FΥ	FY 1994.		FY 1995	995		FY 1996	966	FY	FY 1997
ELEMENTS OF COST	I —— I	Qty Cost	Total   Cost	Qty	Unit	Total   Cost	Qty	Unit	Total   Cost	Qty Cost	Total Cost
Systems Devel									2,720		066
Total	1	1		1					2,720		066
Northing Tuetification	4.0	 	 	     	         	  -  -  -  - 	       	 	 		 

All systems operate on existing MSC or NCTS computers. All funds are for system design, test, implementation, documentation, and user training. However, MSC will be migrating from a mainframe to a client/server environment.

Certain systems providing ship schedule/voyage management and storage/archiving/distribution of ship technical date (drawings/technical manuals) are mission critical.

Various modules integrate existing worldwide procurement system with developing/deploying financial system; this ensures validation of accounting data at time of origination, and tracking of both procurement and funds control from obligation through payment.

C:\96PB\CPP\9BBRIEFC

- con	ID	97	Total Cost		188	188
A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON	D. Activity ID	FY 1997	Qty   Unit		Varies	
BMISS	<u>.</u>		0ty			
3UDGET SUE	noi X	966	Total   Cost		220	220
FY 196	Item Description	FY 1996	Qty   Unit		Varies	-
 	tem [		Qt,			
NOI	No.	995	Total			
TIFICAT	C. Line C002 & C004	FY 1995	Qty Cost			
IT JUS	 		Qty			
INVESTMEN n Thousar	ate portatior	FY 1994	Total   Cost			
APITAL Nars i	Area/D	FY	Unit			
REA C	iness omman SSION	<u> </u>	qty			
BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL		ELEMENTS OF COST   Qty   Cost   Cost	Briefing Complex - Site Mods	- Equip	Total

The Command Center Upgrade will integrate all C2 systems, briefing preparation functions, and briefing capabilities into a Command and Control Center.

The upgrade will include the capabilities to display from overhead or 35 mm slides, PC generated output, video teleconferencing, remote video feeds, commercial TV, video tape, etc.

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# FY 1995 CAPITAL PROGRAM RECONCILIATION

## BUSINESS AREA: NAVY-TRANSPORTATION

Minor changes reflect revised program emphasis, largely to support conversion of ADP support from mainframe to a client server environment with resultant long term savings. Comparative estimates are as follows:

	FY 1995		
	<b>President's</b>	Revised	
	Budget	FY 1995	Change
Total Capital Purchases (\$ millions)	5.0	4.8	6-
Equipment (Containers)	2	·	4 C
ADPE & Telecommunications:	!		ī
International Maritime Satellite Earth Stations	9.	<u></u>	P -
Fly Away Kit	· <b>~</b> 0	! ,	r <b>V</b>
Projection System	; c		,
Briefing Complex	ļ,	. ^	<u>.</u> °
Equipment & Software to Support TMDS & CALS	ì	i <i>c'</i>	iο
LAN Items (Micros, Printers, etc.)		: <u>/</u> :	i L
Mobile Office	2.1	2.1	: ,
Software Development:	i	-	
Support of IMDS and CALS	i	က	c.
All Other Transportation Systems	1.3	1.0	ن دن

### **DEPARTMENT OF THE NAVY** RESEARCH AND DEVELOPMENT NARRATIVE SUMMARY

### **FUNCTIONAL DESCRIPTION:**

The R&D business area reflected in this budget consists of four Warfare Centers and two standalone laboratories. The current structure was designed to preserve the Navy's R&D capability with fewer resources by purifying mission responsibilities (see below) and establishing R&D leadership areas.

### **BUSINESS AREA COMPOSITION:**

### NAVAL AIR WARFARE CENTER

Provides full spectrum research, development, test and evaluation, engineering, and fleet support for air platforms, autonomous air vehicles, missiles and missile subsystems, weapon systems associated with air warfare, avionics systems, and for sensor systems used to conduct antisubmarine warfare from air platforms. Annual volume of business is \$2.7 billion.

Activity Group Composition:		Locations
Naval Air Warfare Center, Aircraft Division	•	Patuxent River, MD Indianapolis, IND Lakehurst, NJ Trenton, NJ

Warminster, PA Naval Air Warfare Center, Weapons Division China Lake, CA Point Mugu, CA

### **NAVAL SURFACE WARFARE CENTER**

Provides full spectrum research, development, test and evaluation, engineering, and fleet support for ship hull, mechanical, and electrical systems, surface combat systems, coastal warfare systems, and other offensive and defensive systems associated with surface warfare. Annual volume of business is \$2.1 billion.

Activity Group Composition:	<u>Locations</u>
Dahlgren Division	Dahlgren, VA.
	Panama City, FL.
	White Oak, MD
Carderock Division	Carderock, MD
	Annapolis, MD
	Philadelphia, PA.

Indian Head Division Crane Division

Port Hueneme Division

Indian Head, MD
Crane, IND
Louisville, KY
Port Hueneme, CA
Yorktown, VA
Dam Neck, VA
San Diego, CA

### NAVAL UNDERSEA WARFARE CENTER

Provides full spectrum research, development, test and evaluation, engineering and fleet support for submarines, autonomous underwater systems and offensive and defensive weapon systems associated with undersea warfare. Annual volume of business is \$900 million.

**Activity Group Composition:** 

Locations

Newport Division Keyport Division Newport, RI Keyport, WA

### NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER

Provides full spectrum research, development, test and evaluation, engineering and fleet support for command, control and communication systems and ocean surveillance and the integration of those systems in multi-platforms. Annual volume of business is \$900 million.

**Activity Group Composition:** 

Locations

NCCOSC RDT&E Division NCCOSC West Coast Division NCCOSC East Coast Division

San Diego, CA San Diego, CA

Charleston, SC

### NAVAL RESEARCH LABORATORY

The Navy's single, integrated, full spectrum corporate laboratory. Conducts a broad-based multi-disciplined program of scientific research and advanced technological development directed toward maritime applications of new and improved materials, techniques, equipment, systems and ocean, atmospheric, and space sciences and related technologies. Annual volume of business is \$600 million.

**Activity Group Composition:** 

**Location** 

Naval Research Laboratory

Washington, DC

### NAVAL FACILITIES ENGINEERING SERVICE CENTER

The Navy's primary engineering and technology center for shore establishments, Naval Construction Forces (SEABEES), and the Marine Corps Engineers. Major efforts are directed toward the development of innovative products and services to improve the acquisition, operations, and maintenance of Naval shore and ocean facilities, and the enhancement of SEABEE and Marine Corps operational readiness. Other areas of emphasis include physical security, ordnance facilities, structural dynamics and environmental protection. Annual volume of business is \$50 million.

**Activity Group Composition:** 

Location

Naval Facilities Engineering Service Center

Port Hueneme, CA

### **BUDGET HIGHLIGHTS:**

<u>Customers</u>: Providing almost \$7 billion in research and development services to Navy and DoD customers, this business area is one of the three largest in the DoN portion of the Defense Business Operations Fund. In addition to supporting a broad range of programs in various stages of life cycle management, the R&D business area also supports significant foreign military sales, private party customers and tenant requirements. As such, their diverse customer base includes virtually all appropriations as follows: O&M,N (18%), RDT&E (30%), Other DBOF (6%), OPN (12%), WPN (5%), SCN (6%), APN (7%), Army Appropriations (1%), Air Force Appropriations (2%), DoD Appropriations (9%) and other miscellaneous funding (4%).

<u>Workload</u>: Direct Labor Hours (DLHs) currently represent the best output indicator for the research and development community. From FY 1994 to FY 1995, DLH's decline 4.8 percent, from FY 1995 to FY 1996 they decline 3.3 percent and from FY 1996 to FY 1997 they decline another 4.7 percent. These workload reductions are consistent with downsizing trends within DoD and also reflect an increased reliance on the private sector to perform research, development, and in-service engineering.

	FY 1994	FY 1995	FY 1996	FY 1997
Direct Labor Hours (thousands)	61,121	58,206	56,275	53,602

**Revenue**: The large increase (6 percent) in Revenue from FY 1994 to 1995 is due primarily to an Accumulated Operating Result (AOR) recoupment factor of approximately \$135 million included in FY 1995 rates. Revenue declines beyond FY 1995 are consistent with workload reductions, partially offset by wage increases, general inflation and DoD corporate capital surcharges.

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue (millions)	\$7,376	\$7,821	\$7,707	\$7,506

<u>Costs</u>: Cost of Goods Sold remains relatively flat through the budget years. Generally, decreases in staffing and overall workload are offset by pay raises and general escalation.

	FY 1994	FY 1995	FY 1996	FY 1997
Cost of Goods Sold (millions)	\$7,693	\$7,672	\$7,638	\$7,462

Economies and Efficiencies: Cost savings associated with a variety of productivity initiatives are being realized by many methods such as contracting and acquisition streamlining, continued consolidations, productivity returns on capital investment purchases, and implementation of Total Quality Leadership processes. Expected dollar savings are estimated to increase by \$45 million in FY 1995 over the FY 1995 President's Budget. FY 1996 will yield an additional \$78 million in savings with FY 1997 accruing another \$47 million.

**Personnel**: As a result of BRAC decisions, general workload reductions and increased use of the private sector, the R&D business area is utilizing Voluntary Early Retirement Authority and Separation Incentive Pay as force shaping tools to meet an aggressive 13 percent decline in personnel through the budget years. Though relatively costly in the near term, these separations incentives are required to maintain a competitive posture and meet budget realities. To the extent that these incentives are not taken, reduction in force measures may be required.

	<u>FY 1994</u>	FY 1995	FY 1996	FY 1997
Surface Warfare Center	19,578	18,064	17,276	16,124
Air Warfare Center	18,128	17,425	16,735	16,042
Undersea Warfare Center	6,562	6,315	5,609	5,166
Cmd., Control & Ocean Surv. Center	5,201	5,353	5,441	5,240
Research Laboratory	3,630	3,729	3,735	3,739
Facilities Eng. Service Center	322	281	271	273
Total Civilian Personnel (E/S)	53,421	51,167	49,067	46,584

<u>Base Closure and Realignment</u>: BRAC II and III decisions have been reflected in this submission. BRAC costs are treated as a direct reimbursable from the BRAC appropriation. Personnel and other savings associated with Base Closure have also been incorporated.

<u>Stabilized Rates</u>: R&D stabilized rates have been set to achieve accumulated operating results of zero by the end of FY 1996. After a relatively significant increase in R&D prices in FY 1995 (averaging 11 to 12 percent), rates exhibit greater stability in FY 1996 and 1997 increasing by modest levels of approximately 2 to 3 percent per year. Individual warfare center/laboratory rates are listed below and indicate the percentage change from the previous year prices.

	FY 1995	FY 1996	FY 1997
Surface Warfare Center	16.1%	2.8%	2.1%
Air Warfare Center	15.5%	1.2%	2.6%
Undersea Warfare Center	6.4%	5.9%	2.5%
Cmd., Control & Ocean Surv. Center	8.5%	2.4%	1.7%

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Research Laboratory	1.9%	1.6%	5.6%
Facilities Eng. Service Center	6.0%	3.5%	4.1%

Capital Budget: The following depicts, by warfare center/laboratory, levels of capital investment (in millions) required by the R&D business area to meet customer/mission requirements. This capital budget, fully funded in customer rates and comprising less than 2 percent of revenue, represents the minimum investment required to maintain adequate infrastructure, replace unserviceable/obsolete equipment and maintain the technological edge that is this business area's raison d'etre. Savings accruing from productivity enhancing investments have been incorporated into operating budgets as indicated on the Changes in Cost of Operations exhibit. The large reduction from the FY 1995 President's Budget to the FY 1995 Current Estimate is the result of a \$200 million Congressional adjustment to DBOF capital which translated to a \$68 million reduction to this business area.

	FY 1995	FY 1995		
<u>Presiden</u>	t's Budget	Current Est.	FY 1996	FY 1997
Surface Warfare Center	57.4	21.2	32.4	32.0
Air Warfare Center	49.9	35.0	51.3	45.3
Undersea Warfare Center	24.1	16.8	23.7	22.6
Cmd., Control & Ocean Surv. Center	r 12.9	8.7	10.3	8.5
Research Laboratory	16.8	11.7	16.0	16.0
Facilities Eng. Service Center	0.8	0.6	0.8	0.8
Total Capital Budget	\$161.9	\$94.0	\$134.5	\$125.2

### DEPARTMENT OF THE NAVY RESEARCH AND DEVELOPMENT REVENUE AND EXPENSES

(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	_FY 1997
Revenue:		•		
Gross Sales	7,376.6	7,821.7	7,707.2	7,506.4
Operations	7,166.6	7,665.7	7,499.4	7,299.5
Capital Surcharge	0.0	0.0	46.3	43.8
Depreciation except Maj Const	174.3	156.0	161.5	163.1
Major Construction Depreciation	35.7	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	7,376.6	7,821.7	7,707.2	7,506.4
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	232.9	261.6	274.2	234.2
Salaries and Wages:			_,	
Military Personnel	89.4	61.0	45.1	44.8
Civilian Personnel	3,207.9	3,102.2	3,104.9	3,012.9
Materials, Supplies and	,	,		-,
Parts used in Operations	900.3	1,020.0	952.5	974.9
Facility Repair Charge	159.3	158.5	153.9	153.9
Depreciation - Capital	210.0	156.0	161.5	163.1
Contracted Engineering Services	421.0	513.5	541.4	583.3
Lease Costs	15.0	20.9	21.7	21.7
Purchased Utilities	101.4	109.7	110.0	110.5
Purchased Communications	63.0	75.0	60.0	55.1
Equipment Maintenance	51.3	65.5	66.0	66.8
Fuel	34.3	27.4	29.5	30.3
Other Expenses	2,207.4	2,101.2	2,117.7	2,011.1
Total Expenses	7,693.2	7,672.5	7,638.4	7,462.6
Operating Result	(316.6)	149.2	68.8	43.8
Less Capital Surchg Reservation	0.0	0.0	46.3	43.8
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(19.1)	1.0	0.0	0.0
Net Operating Result	(335.7)	150.2	22.5	(0.0)
Prior Year AOR	163.0	(172.7)	(22.5)	0.0
Accumulated Operating Result	(172.7)	(22.5)	0.0	(0.0)

### DEPARTMENT OF THE NAVY Research and Development SOURCE OF REVENUE (Dollars in Millions)

1. New Orders	FY 1994 8,725.7	FY 1995 7,294.5	FY 1996 6,906.0	FY 1997 6,996.7
a. Orders from DoD Components	7,782.6	6,670.4	6,285.3	6,359.1
Department of the Navy	6,845.2	5,870.5	5,500.2	5,687.2
Operations and Maintenance, Navy	1,465.4	1,293.9	1,198.8	1,340.9
Operations and Maintenance, Marine Corps	22.0	11.9	12.4	12.5
O&M, Navy Reserve	27.8	13.1	11.7	14.2
O&M, Marine Corps Reserve	0.3	0.2	0.3	0.3
Aircraft Procurement, Navy	524.6	505.0	490.7	436.5
Weapons Procurement, Navy	554.0	411.3	362.2	351.8
Shipbuilding & Conversion, Navy	568.5	398.5	394.2	395.3
Other Procurement, Navy	1,217.0	947.1	846.9	896.5
Procurement, Marine Corps	26.3	46.1	59.5	56.5
Family Housing, Navy and Marine Corps	28.5	21.9	22.7	22.9
Research, Development, Test & Eval, Navy	2,360.9	2,185.7	2,073.8	2,124.5
Military Construction, Navy	3.8	1.4	1.9	1.6
Other Navy Appropriations	41.9	33.2	25.1	33.7
Other Marine Corps Appropriations	4.2	1.2	0.0	0.0
Department of the Army	68.2	53.6	57.7	49.8
Army Operation & Maintenance Accounts	7.2	3.7	3.7	3.1
Army Res, Dev, Test & Eval Accounts	12.5	28.0	33.1	27.7
Army Procurement Accounts	6.1	11.4	11.6	10.0
Army Other	42.4	10.5	9.3	9.0
Department of the Air Force	129.4	112.1	117.9	130.4
Air Force Operation & Maintenance Accounts	10.0	7.7	7.9	8.6
Air Force Res, Dev, Test & Eval Accounts	46.1	69.9	75.4	84.3
Air Force Procurement Accounts	25.2	26.3	26.6	29.4
Air Force Other	48.1	8.2	8.0	8.1
DoD Appropriated Accounts	739.8	634.2	609.5	491.7
Base Closure and Realignment	158.3	194.9	158.5	46.1
Operation & Maintenance Accounts	33.5	8.3	6.2	8.1
Res, Dev, Test & Eval Accounts Procurement Accounts	199.6 126.7	260.2 25.5	268.0 22.1	274.1 20.5
DoD Other	221.7	25.5 145.3	154.7	20.3 142.9
b. Orders from DBOF Business Areas	605.9	405.2	410.1	420.2
c. Total DoD	8,388.5	7,075.6	6,695.4	6,779.3
d. Other Orders	337.2	218.9	210.6	217.4
Other Federal Agencies	119.8	84.4	87.1	89.6
Trust Funds (including FMS)	183.0	103.6	93.0	95.6
Non Federal Agencies	34.4	30.9	30.5	32.2
2. Carry-In Orders	3,626.7	4,975.8	4,448.6	3,647.4
3. Total Gross Orders (available funding)	12,352.4	12,270.3	11,354.6	10,644.1
4. Carry-Out Orders	4,975.8	4,448.6	3,647.4	3,137.7
Change in Backlog (carry-out less carry-in)	1,349.1	(527.2)	(801.2)	(509.7)
5. Total Gross Sales	7,376.6	7,821.7	7,707.2	7,506.4

Department of the Navy

Research and Development

Summary of Price, Program and Other Changes (Operating Budget)

(Dollars in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	89,401	661	(29,082)	086'09	1,234	(17,143)	45,071	1,182	(1,447)	44,806
Civilian Personnel Compensation	3,207,946	56,009	(161,750)	3,102,205	69,115	(66,414)	3,104,906	83,319	(175,350)	3,012,875
Travel	218,063	2,834	18,166	239,063	3,560	4,521	247,144	3,643	(30,701)	220,086
Material & Supplies - Commercial	602,406	16,970	86,635	706,011	21,725	(34,250)	693,486	21,358	(33,556)	681,288
Material & Supplies - from DBOF	332,144	47,120	(37,702)	341,562	(55,492)	2,420	288,490	25,470	906'6	323,866
Other Intrafund (DBOF) Purchases	380,725	43,141	(39,813)	384,053	(38)	(2,251)	381,764	11,995	(5,633)	388,126
Transportation	14,837	429	7,276	22,542	1,130	3,394	27,066	812	(13,761)	14,117
Capital Investment Depreciation	174,309	0	(18,283)	156,026	0	5,520	161,546	0	1,562	163,108
Other Purchases	2,673,404	74,859	(88,207)	2,660,056	661,61	(50,967)	2,688,888	80,667	(155,261)	2,614,294
<b>Total Operating Budget</b>	7,693,235	242,023	(262,760)	(262,760) 7,672,498	121,033	(155,170)	(155,170) 7,638,361	228,446	228,446 (404,241)	7,462,566

### DEPARTMENT OF THE NAVY RESEARCH AND DEVELOPMENT CHANGES IN COST OF OPERATIONS

(Dollars in Millions)

	<u>Costs</u>
FY 1994 Current Estimate	7,693.2
FY 1995 Estimate in President's Budget	6,893.4
Estimated Impact in FY 1995 of FY 1994 Experience: a. Workload increase	534.3
Pricing Adjustments: a. Annualization of FY 1995 Pay Raise b. FY 1996 Pay Raise	0.0
Civilian Personnel	23.0
Military Personnel	0.0
c. DBOF Price Changes	0.0
d. General Purchase Inflation	0.0
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(39.0)
b. Capital Investment/Consolidation Efficiencies	(16.5)
Program Changes: a. Workload	295.6
Other Changes:	
a. Depreciation	(15.0)
b. BRAC	1.7
c. VERA/SIP	(5.0)
FY 1995 Current Estimate	7,672.5
Pricing Adjustments:	
a. Annualization of FY 1995 Pay Raise	19.3
b. FY 1996 Pay Raise	
Civilian Personnel	49.8
Military Personnel	1.0
c. DBOF Price Changes	(57.4)
d. General Purchase Inflation	108.4
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(39.0)
b. Capital Investment/Consolidation Efficiencies	(38.5)

Program Changes: a. Workload	(41.5)
Other Changes:	
a. Depreciation	0.5
b. BRAC	(35.6)
c. VERA/SIP	(1.1)
C. VERA/SIF	(1.1)
FY 1996 Estimate	7,638.4
Pricing Adjustments:	
a. Annualization of FY 1996 Pay Raise	22.0
b. FY 1997 Pay Raise	
Civilian Personnel	61.7
Military Personnel	0.9
c. DBOF Price Changes	35.5
d. General Purchase Inflation	108.3
Productivity Initiatives and Other Efficiencies:	
a. Capital Investment/Consolidation Efficiencies	(46.8)
Program Changes:	
a. Workload	(234.5)
Other Changes:	
a. Depreciation	2.6
b. BRAC	(115.6)
c. VERA/SIP	(9.9)
FY 1997 Estimate	7,462.6

Department of the Navy Research and Development Capital Budget Summary (\$ in Millions)

Item	Ţ.	FY 1994	μ,	FY 1995	E	FY 1996	FY	FY 1997
Description	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
1a. Non ADP Equipment (>\$500,000)				 				
Naval Surface Warfare Center		3.0		1.3		3.7		3.3
Naval Air Warfare Center		10.9		7.8		8.5		8.7
Naval Undersea Warfare Center		6.4		1.6		3.5		2.9
Naval Command, Control and Ocean Surveillance Center		2.6		2.3		0.0		9.0
Naval Research Laboratory		1.9		5.7		1.9		5.6
Naval Facilities Engineering Service Center		0.0		0.0		0.0		0.0
Subtotal Equipment (>\$500,000)		24.7	•	18.6		17.6		21.0
1b. Non ADP Equipment (>\$50,000<\$500,000)						•		
Naval Surface Warfare Center		13.4		4.		6.6		11.3
Naval Air Warfare Center		12.8		5.1		11.1		9.6
Naval Undersea Warfare Center		6.4		6.5		7.7		8.1
Naval Command, Control and Ocean Surveillance Center		1.2		0.8		2.7		1.6
Naval Research Laboratory		5.2		2.7		9.9		3.0
Naval Facilities Engineering Service Center		0.4		0.3		0.4		0.3
Subtotal Equipment (>\$50,000<\$500,000)		39.4		19.9		38.4		33.9
2a. ADP Equipment and Telecommunications (>\$100,000)								
Naval Surface Warfare Center		20.8		7.3		10.6		10.9
Naval Air Warfare Center		13.5		15.7		23.1		16.1
Naval Undersea Warfare Center		14.4		7.2		4.7		4.6
Naval Command, Control and Ocean Surveillance Center		2.6		3.4		3.9		3.6
Naval Research Laboratory		1.1		9.0		1.3		1.9
Naval Facilities Engineering Service Center		0.0		0.0		0:0		0.0
Subtotal ADP Equipment (>\$100,000)		52.4		34.3		43.7		37.1

3.1	0.8	1.1	0.4
3.8	1.2	3.0	5.4
1.3	0.4	2.8	1.9
3.4	2.1	2.9	2.0
2.7	1.7	4.6	4.1
0.2	0.2	0.3	0.3
14.4	6.5	14.6	14.0
8.4	4.0	~	0.7
۳,0	0.5	¥ C	
0.00	0.0	0.0	0.0
7.0	0.1	0.0	0:0
0:0	0.0	0.0	0.0
0.1	0.1	0.1	0.2
6.8	4.7	2.4	1.7
6.9	3.5	5.4	5.4
3.5	4.6	5.0	4.7
2.7	1.1	5.1	5.1
0.7	0.0	0.0	0.7
1.1	1.1	1.5	1.5
0.2	0.0	0.0	0.0
15.0	10.3	17.9	17.5
154.8	94.2	134.5	125.2
	2.7 0.2 14.4 0.3 0.0 0.0 0.1 8.9 3.5 2.7 0.7 1.1 0.2	2.7 1.7 0.2 0.2 14.4 6.5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.1	1.7 0.2 6.5 6.5 0.0 0.1 0.0 0.1 4.7 4.6 1.1 0.0 10.3

### Department of the Navy Research and Development Statement of Financial Condition (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Assets:				
Selected Assets:				
Cash	(640.9)	(325.3)	119.1	87.2
(Available for Operations)				
(Required for Capital Purchases)				
Accounts Receivable	483.5	443.8	435.1	426.3
Advances Made	0.0	0.0	0.0	0.0
Inventories	155.0	150.4	142.9	132.0
Other Assets	462.7	380.9	354.0	334.7
Capital Property (Net)	1,729.5	1,774.6	1,800.8	1,818.0
Total Assets	2,189.8	2,424.4	2,851.9	2,798.2
Liabilities:				
Selected Liabilities				
Accounts Payable	472.5	465.9	466.8	456.8
Accrued Liabilities	1,456.8	1,461.4	1,498.9	1,488.3
Advances Received	692.0	90.0	55.7	48.7
Unfunded Liabilities	0.0	0.0	0.0	0.0
Other Liabilities	150.9	28.7	61.5	101.5
Total Liabilities	2,772.2	2,046.0	2,082.9	2,095.3
Government equity				
Appropriations/Reappropriations	0.0	0.0	0.0	0.0
Paid-in Capital (Assets Capitalized				
Less Liabilites Assumed)	(409.7)	400.9	769.0	703.1
Accumulated Operating Results	(172.7)	(22.5)	0.0	0.0
Total Government Equity	(582.4)	378.4	769.0	703.1
Total Liabilites and Equity	2,189.8	2,424.4	2,851.9	2,798.4

CAPIT?	AL PURC Dollare	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	Budget Submission FY1996/1997 Blenn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 1/CNC	le. No PORTAL	ine. No & Description PORTAL-TYPE MACH CTR		D. Activity NSWC - CRANE	D. Activity Identification NSWC - CRANE DIVISION, LOUI	Identification DIVISION, LOUISVILLE	ation	VILLE
	FY 1994	4		FY 199	995		FY 1996	9	-	FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
NON-ADP EQUIP INSTALLATION TOTAL							H	1,500	1,500			

Narrative Justification: (Replacement)

and vertical capability. It will be a floor-type, double-column, Computer Numerically Controlled (CNC). The table will be 58" x 96" with an automatic tool changer; external and through-spindle The equipment to be purchased will be a boring, drilling, milling machine center with horizontal coolant system; 5-axis capability (Universal Head with Direct Numerical Control (DNC) - OA Interface Storage Rack and Software). This project is to replace a Numerically Controlled (NC) Horizontal Machine that was purchased in 1970. This equipment is obsolete and old drives cannot be retrofitted because of the last of availability of parts. It is driven by numerically controlled tapes, which do not have editing capability. The present machine is in such deteriorated condition, that the maintenance exceeds maintenance in order to keep the machine running. The new equipment selected will be compatible with other CNC equipment on-station, which will allow easy transfer of projects from machine to every three hours spent in producing parts, one hour is required for This equipment is obsolete and old drives cannot be retrofitted because of the lack of machine to expedite production and decrease downtime due to maintenance and repair. For approx.

maintenance costs will continue to increase disproportionately and repair parts will become even condition that will be unacceptable to our customers and the ultimate result will be loss more unavailable. Delays in production times and increased maintenance costs will create If this equipment is not purchased, production times will continue to lengthen, excessive

CAPITA )	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 2/CNC CNTR	e. No 4-AXIS	C. Line. No & Description 2/CNC 4-AXIS MACHINING CNTR	otion NG	D. Activity NSWC - CRANE	Activity Identification : - CRANE DIVISION, LOUI	Identification DIVISION, LOUISVILLE	ation	VILLE
	FY 1994	4		FY 1995	2		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
NON-ADP EQUIP INSTALLATION TOTAL							П	505	505 30 535			

Narrative Justification: (Replacement)

center. This project is the first of a 2-phase procurement to install a highly automated flexible machining "cell" to support small lot quantity just-in-time manufacturing at the Louisville site. This (Computer Numerically Controled) CNC 4-axis machining center comes with an automatic tool changer with 120 tool capacity and a shuttle pallet system with two pallets. An additional 7 pallets, an acyamatic CNC machine control, and a storage rack are also part of this machining This project is modular in design to permit the integration of the phase 2 procurement.

The adaptive feed rate control feature automatically changes feed rates according to changes in the Broken tool detection features The modern features and accessories of the proposed A large capacity tool magazine This first phase will replace two (2) 1960 vintage 3-axis machining centers. These machines are cutting loads, preventing damage to materials and tooling. The modular design of the controller allows the center to operate as an independent "Island of Automation" or to interface upward to inspect for damaged tools and automatically switch to backup tools preventing scrap and rework. allows space for backup tooling to ensure maximum spindle up-time. machining center will ensure maximum productivity and efficiency. inefficient and frequently down for repairs. other systems. If not funded, this site will be forced to continue to utilize vintage machine tools to manufacture original machine tool vendors. This requires in-house manufacture of repair parts, which increases Current methods require extended spindle idle-time as production part set-ups are ordnance equipment parts. Because of age and mechanical condition, extended periods of downtime will continue to be experienced. Mechanical replacement parts are no longer stocked by the checked for functionality while on the machine table, and dull tools are replaced. overhead costs.

K#TQ KU	T. DITEC	תאפשט ד	**************************************	14.0 X		ı		  -				
1)	Dollar	a in The	(Dollars in Thousands)	N C		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienn:	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 3/REFU	ne. No RBISH	C. Line. No & Description 3/REFURBISH INT GRINDER	otion ER	D. Act	D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE	entific VISION,	ation	TILE
	FY 1994	4		FY 199	95		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Unit Cost	Unit	Total
NON-ADP EQUIP							i i			T Kraiic	575	575
INSTALLATION												50

# Narrative Justification: (Replacement)

The machine needs new controls and new Spindle bearings and other substandard components need to be replaced. Scraping the ways and replacing guides, if needed, will improve the This project will refurbish existing Internal Grinder, Navy identification number 017765. machine is over 40 years old and needs to be refurbished. accuracy of this machine. drive motors installed.

It is also used to grind internal bores of other various parts as needed. In the past, it was used to grind This machine is unique and there is not another machine on-Station with this capability. primary function of this machine is to grind the chambers on all types of gun barrels. launch valves, that were brought on-Station because of our capabilities.

barrels, we could, and will, lose future work. In the past, this machine was used to perform work We need this machine to maintain If we lose this machine with its unique capability to grind the chambers of various types of gun that was brought on-Station because of our unique capabilities. our competitiveness and be a source for this extraordinary work.

CAPITA ()	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission / Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lin 4/BATT	e. No ERY TE	C. Line. No & Description 4/BATTERY TEST SYSTEM	tion	D. Act	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific VISION,	ation CRANE	
	FY 1994	4		FY 1995	ري ا		FY 1996	6		FY 1997	7	ı
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
NON-ADP EQUIP										1	997	997

Narrative Justification: (Productivity)

include a HP-100 computer (ADP end item exempt), HP3582 scanner, HP-3465 digital voltmeter, 32 solid state load banks ranging in size from 100 amp/600 volt to 7000 amp /10 volt, and four 100 amp A Rechargable Battery Evaluation System consisting of two 27 cubic ft temprature-humidity chambers (capable of -40 to +50 degree F) and a Digital Data Acquisition and Control System, which will /600 volt DC power supplies.

resistive type, replacement of high maintenance, 20 year old equipment), to provide greater safety This equipment is needed to improve productivity (more efficient data acquisition and control, temprature chambers located within test laboratory, programmable solid state loads instead of (elimination of "open' resistive loads), and to improve test quality (greater precision and reliability during test control and greater accuracy & reliability during data acquisition recording)

Productivity Impact; MILCON P-283 will If this equipment is not procured - Mission Impact: Crane Division ability to support mission critical battery programs for DSRV, SEAWOLF, and attack submarines will be impacted. Submari will not sail; submariner's safety will be compromised. operate at only 63.4 efficiency.

CAPITA ()	IL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission ' Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	a te	C. Lin 5/RAPI	ie. No	C. Line. No & Description 5/RAPID PROTOTYPING SYSTEM		D. Act	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific VISION,	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant Cost	Unit	Total Cost	Quant	Unit	Total
NON-ADP EQUIP										П	614	614

Narrative Justification: (Productivity)

Capacity of this machine is 12 inch diameter and a 15 A Rapid Protyping System uses three -dimensional Computer Aided Design models to create 3D parts from powdered materials by laser sintering. inch depth.

Inexpensive This will allow casting and molding parts for design qualification to be produced improve design modification ability and reduce iterations. Engineering form, fit, and fuctional masters for die casting, sand casting, investment casting and spray metal tooling and rubber and Rapid Protyping (RP) will improve product engineering capability by accelerating design time, RP parts can be provided to bidders when bidding on contracts. RP parts can also be used as models can be made rapidly and inexpensivly thereby eliminating dependence on costly, time concepts/modifications by viewing/handling plastic parts early in the design process. consuming and hazardous machining. RP will allow sponsors to review our design economically. Implementation of RP will reduce product design cost, reduce design cycle time, and improve product customer using 3D in the same or less time as conventional prototyping efforts. The results will This system will also allow designers to design parts as castings which are less be improved designs with fewer manufacturing iterations. RP will eliminate expensive tooling Costs will be reduced by verifying designs without the expense of creating detailed drawings or machined parts. It will allow multiple design concepts to be explored with the Small quanities are often required for spare parts and design expensive than machined parts. small quanity castings. verification. quality.

CAPITA ()	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estir	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Di	ate	C. Lir 6/Magn Modeli	C. Line. No & Des 6/Magnetic Physic Modeling Facility	C. Line. No & Description 6/Magnetic Physical Modeling Facility		D. Activ NSWC - CA ANNAPOLIS	D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS	entific C DIVIS	ation SION,	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost
NON-ADP EQUIP				,			Н	610	610			

Narrative Justification: (New Mission)

field The Magnetic Physical Modeling Facility is designed to measure the 3-dimensional magnetic around large scale (circa 20-ft) models in order to evaluate magnetic silencing efforts.

testing will result in fewer and more effective full scale trials. A physical model facility will physical model work represents 8% of the Submarine Block Program, or \$1.25M and about 30% of the Surface Ship Program, or \$700K of direct funding annually. Proper laboratory result in additional work in the Submarine and Surface Ship Electromagnetic Silencing Program. The ability to test systems and demonstrate feasibility in the laboratory will be a significant cost saving. Full scale sea trials can be time consuming and costly.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	ission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	r Estim	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lin 7/Larg Model	ie. No & Des ge Scale Stri Test System	C. Line. No & Description 7/Large Scale Structural Model Test System	g	D. Activ NSWC - CA CARDEROCK	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK	entific C DIVIS	ation ION,	
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	×
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
NON-ADP EQUIP							Н	300	300	1	200	200

Narrative Justification: (New Mission)

Scale Structural Model Test System is a system for evaluating the strength and performance of full-size or large scale 3-Dimensional structural models.

primary hull strength. It will support programs in double hull/double deck tankers, composite ship structures, ship survivability, etcetera. Specifically it will investigate compressive buckling mode interaction, strength sensitivity to structural geometry and initial imperfections, and reserve strength remaining after initial buckling, and repeated tension and compression loading. This system will allow customer requested tests to be run on full or large scale models of structures composed of orthogonally stiffened ship hull plate for the purpose of investigating

Failure to fund this project will result in the inability to meet customer requirements

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	et Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lin 8/SFDF System	C. Line. No & 1 8/SFDF High Promesystem Upgrade	) es	tion	D. Activ NSWC - CA.	D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS	entific K DIVIS	ation ION,	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost
NON-ADP EQUIP							н	300	300	1	400	400

Narrative Justification: (New Mission)

The Submarine Fluid Dynamics Facility (SFDF) High Pressure Air System supplies high pressure air a multitude of Research and Development facilities and purposes.

the 5000-6000 psig range is anticipated for the future aboard Navy ships as a space saving measure. New air bottles will provide a 5000-6000 psig capability when a new compressor and manifold system 4800 psig capability is required to meet current needs. A trend towards pressure air systems in This facility directly supports Research and able to handle the increased pressure is procured. This facility directly supports Researd Development efforts to provide quiet air systems in support of surface and undersea vehicle The SFDF High Pressure Air System is limited to 4200 pounds per square inch gauge (psig). acoustical signature reduction.

Failure to fund this project will result in the inability to meet customer requirements.

ľAL	PURC	HASES JI	CAPITAL PURCHASES JUSTIFICATION	TION		A. Budo	et Sub	Budget Submiggion				
	lar	(Dollars in Thousands)	usands)			FY19	96/199.	7 Bienn	FY1996/1997 Biennial Budget Estimates	t Estin	nates	
0.000	iness	B. Component/Business Area/Date DON/R&D	ate	C. Lin 9/PURC WASTEW AP SYS	C. Line. No & Desc 9/PURCHASE/INSTALL WASTEWATER RECIRCU AP SYS.	C. Line. No & Description 9/PURCHASE/INSTALL WASTEWATER RECIRCULATING AP SYS.	otion	D. Act NSWC - HEAD	D. Activity Identification NSWC - INDIAN HEAD DIVISION, HEAD	entific EAD DIV	ation ISION,	INDIAN
	FY 1994	4		FY 199	35		FY 1996	9		FY 1997	7	
<u>ج</u> َ	Quant Cost	Unit	Total	Quant	Unit	Total Cost	Ouant	Unit	Total	Onant Coat	Unit	Total
l							1			1	500	500

Narrative Justification: (Environ/Safety)

Wastewater Recirculating Equipment.

This equipment is required to bring the Activity into compliance with Federal and State regulations governed by the Clean Water Act and will reduce the amount of Ammonium Perchlorate being discharged to the sanitary sewer.

Without this equipment, the Activity will be unable to comply with Federal and State regulations governing the Clean Water Act.

CAPITA )	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Bude FY1	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	a te	C. Lir 10/Mig Rep It	ine. No & De isc Non ADP Items < 200K	Q 12	ption	D. Act	Activity Identification	entific	ation	
	FY 1994	4		FY 1995	55		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total	Unit Ouant Cost	Unit	Total
Non ADP Equipment							VAR		4,529	VAR		4,254

This investment replaces aged equipment that is beyond economical repair and will also reduce downtime and maintenance. Examples of replacement equipment include: CESE, Inertial Navigation System, 13FT Pressure Tank Controls, and a Welding Lathe.

CAPITA (D	. PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	t to a	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	a te	C. Lin 11/Mis Items	ie. No sc Non < 500K	ne. No & Description sc Non ADP Equip Prod < 500K	tion	D. Act	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total	Unit Ouant Cost	Unit	Total
NON-ADP EQUIP							VAR		1,303	VAR		1,350

This investment purchases productivity related items which improve the quality and efficiency of the work performed at the Naval Surface Warfare Centers. Examples of productivity investments include: Gas Chromatograph/Mass Spectrometer, Forklift Truck (sideload), Automatic Tube Bender, and a 48 Message Camera System.

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission / Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 12/Mis Missic	sc Non Item	C. Line. No & Description 12/Misc Non ADP Equip New Mission Items < 500K		D. Act	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	35		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		3,129	VAR		4,786

Narrative Justification: (New Mission)

Examples of the types of miscellaneous Non ADP Equipment to be purchased include: Thermal Imaging System, Digital Oscilloscopes, Automated Particle Counter, and a Transmissometer/Absorption Meter.

CAPITY)	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	ate	C. Lin 13/Mis Env/Sa	e. No con lety I	C. Line. No & Description 13/Misc Non ADP Equip Env/Safety Items < 500K		D. Act	D. Activity Identification Naval Warfare Centers	entificenters	ation	
	FY 1994	4		FY 1995	5		FY 1996	9	,	FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total	Unit Quant Cost	Unit	Total Cost
NON-ADP EQUIP							VAR		1,080	VAR		892

Narrative Justification: (Environ/Safety)

These projects are required to meet regulatory requirements which are primarily environmental or safety related. Examples of the types of equipment include: Atomic Absorption Spectrophotometer, Thunder Storm Sensor System, Powder Coating Paint System, Channel Control/Monitoring System, and an Environmental Containment.

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	AM		tal st	330
	N, D		Total	
nates	ation	7	Unit	330
Estin	ntific	FY 1997	Unit Quant Cost	1
Budget Submission FY1996/1997 Biennial Budget Estimates	D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK	·	Total Cost	
Budget Submission FY1996/1997 Bienni	D. Act NSWC - NECK	9	Unit	
et Sub 96/199	tion	FY 1996	Unit Quant Cost	
A. Budg FY19	Line. No & Description CDS INTEGRATION UPGRADE		Total Cost	
	e. No INTEG	5	Unit	
TION	C. Lin 14/CDS	FY 1995	Quant	
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ate		Total Cost	
AL PURCHASES JUSTIFIC (Dollars in Thousands)	Area/Da	4	Unit Cost	
AL PURC Dollar	ısiness	FY 1994	Unit Quant Cost	
CAPIT.	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	ADP EQUIP

Technical design engineering support and associated materials to expand and upgrade the integration Combat Direction System (CDS) network throughout the complex.

This Continued technology upgrades to display systems, system processors and networks has required expansion upgrade will support software development and the In Service Engineering Agent personnel to interface with numberous co-shared equipment suites throughout the complex. present installed system is unable to support the technology of the present and future. roles located at NSWC PHD 6000 and Combat Direction System Agents.

and provides inability to test systems under the live sensor capabilities installed will result in repeated efforts at another location. This location is a training system for USACOM (DIS NODE) This CDS integration upgrade is mission critical to support live integration testing. an opportunity to integrate data both to and from various sites into the PHD site.

		<del>                                     </del>	T	īŪ
	, PORT		Total	125
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Estim	entific VEME DI	FY 1997	Quant	н
Budget Submission FY1996/1997 Biennial Budget Estimates	D. Activity Identification NSWC - PORT HUENEME DIVISION, HUENEME		Total Cost	
Budget Submission FY1996/1997 Bienn	D. Act NSWC - HUENEME	9	Unit	
let Subm 96/1997		FY 1996	Unit Quant Cost	
A. Budg FY19	C. Line. No & Description 15/DOWNSIZING OF MAINFRAMES		Total Cost	
	e. No ansizina	5	Unit Cost	
rion	C. Line. N 15/DOWNSIZ MAINFRAMES	FY 1995	Unit Quant Cost	
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ate		Total Cost	
AL PURCHASES JUSTIFIC (Dollars in Thousands	Area/D	4	Unit Cost	
L PURC	siness	FY 1994	Unit Quant Cost	
CAPITA ()	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	ADP EQUIP

and such as network/file servers, print servers, client/server software, network interface software. Open systems equipment

To meet the command's requirement to downsize mainframes and correctly size computing cost to need in response to the requirement to transition to an electronic communication environment.

Wtihout this procurement the Division will be unable to communicate via The command will be unable to migrate from a mainframe environment to the required downsized distributed environment and transition to a full functioning "paperless office" environment. electronic means as requested by higher authority. is a multi year project.

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CAPITA ()	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	et Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line 16/Desk Upgrade	ne. No sktop P le	Line. No & Description Desktop Publishing rade	tion	D. Act NSWC - CITY	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific	ation ON, PA	NAMA
	FY 1994	4		FY 1995	)5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP										1	120	120

Upgrade to state of the art workstations and advanced (SGML format) page definition software with advanced graphics capabilities.

chip Currently DOS based machines using INTEL 1486 technology and Ventura Publisher software are utilized. This technology has been pushed to This project provides state of the art hardware and software that is CALS compliant for the limit and is not always compatible with industry contractors and CALS standards for direct intechange of data. The proposed equipment would provide this capability. production of engineering technical manuals.

This purchase Without this purchase full integration of CALS compliant software is not possible. is needed to comply with CALS initiatives.

as well This workstations (one each in FY96 and in FY97) to support the Engineering Environment thrust. capability provides the necessary environment for the design, documentation, and analysis, This investment will replace two SGI workstations with Computer Aided Engineering (CAE) as modeling and simuation of weapons systems.

weapons programs supported by the Engineering Environment, including STANDARD Missile, Vertical workstation will be obsolete by FY96 and must be replaced. This capability is critical to the The SGI workstation that currently functions as a file server, software license server and CAE Launch System (VLS), Shoulder-Launched Multi-purpose Assault Weapon (SMAW), and Short Range Anti-tank Weapon (SRAW). If this system is not replaced, systems level prototyping capability will be greatly reduced and operational costs will continue to increase.

CAPITA (1	L PURC	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	let Subr 196/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line. 18/FDDI BACKBONE	ie. No II UPGR	C. Line. No & Description 18/FDDI UPGRADE TO LAN BACKBONE		D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, HUENEME	entific NEME DI	ation VISION,	, PORT
	FY 1994	4		FY 1995	35		FY 1996	9	-	FY 1997	7	·
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										Н	200	200
		•										

Networking devices such as Fiber Distributed Data Interface to Fiber Distributed Data Interface routers, bridges, and/or gateways, optical fiber transmission equipment/material, and telecommunication devices. To provide the necessary Local Area Network backbone to support engineers and other command users in their expected workload for high-density, high-speed graphics transmissions and technical documentation, such as Joint Computer Aided Logistics and Joint Engineering Data Management Information Control System (JEDMICS).

delays in the transmission of data. These delays will prevent command users from completing their Analysis data is based on the assumption that procurement is made in the fiscal years planned. The command's network bandwidth utilization will increase and will result in longer and longer workload in the necessary timeframe for their mission. This is a phased replacement.

CAPIT.	AL PURC Dollar	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	ission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	ate	C. Lir 19/Hig Vizual	he. No th Perf	C. Line. No & Description 19/High Performance Vizualization Network	tion	D. Activ NSWC - CA CARDEROCK	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK	entific K DIVIS	ation ION,	
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
ADP EQUIP							H	09	09	н	95	95

a medium peripheral/supporting equipment consisting of a network server, video editing system, and This project will procure a high performance multi-processor visualization system and performance graphics/multi-media workstation to replace an older obsolete system.

physics-based modeling and simulation visualization. The new system is urgently needed to support Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NSWC) is heavily involved in the increasingly complex computational models produced as a result of these programs. Failure to fund this project will result in continued high maintenance costs, lost productivity due to component down time, and increased contracting costs in order to meet customer requirements.

CAPITAL (Do	PURCH 11ars	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	iness	Area/Da	a te	C. Lin 20/INT ENGINE	e. No EGRATE ERING	Line. No & Description INTEGRATED SOFTWARE INEERING ENVIRON	otion (E	D. Act NSWC - NECK	D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK	entific VEME DI	ation VISION	, DAM
É	FY 1994			FY 1995	5		FY 1996	2		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP			:				Т	360	360	П	360	360

This is a phased project to procure hardware to increase productivity within the software engineering process. This a multi year project. This system will consolidate and redefine our software engineering environment (SER) to support all capabilities we will be better able to support our customers due to improved project planning, functional areas of the software enginering process. In addition to enhancing our mission tracking and oversight.

The current fragmented coupled with the continuing labor force reduction, will cause cost overruns, late deliveries and the inability to adequately serve our customers during the "OUT" years. SEE is labor intensive and potentially error prone. Inefficiencies within the current system, Failure to create and maintain a SER utilizing progressive technology will greatly impact our ability to provide timely support to rapidly evolving fleet requirements.

335

CAPITA ()	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	let Subr 96/1997	Budget Submission FY1996/1997 Bienn	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	a tt e	C. Lin 21/LAN	C. Line. No & Der 21/LAN EQUIPMENT			D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME	entific NEME DI	ation VISION,	PORT
	FY 1994	4		FY 199	95		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										τ	200	200

Networking devices such a high density terminal servers, multi-port Ethernet concentrators, high-speed networking bridges/routers, optical fiber transmission equipment, and telecommunication devices.

Economic Analysis assumes prior year procurement To replace and upgrade networking equipment that has become obsolete or is no longer capable of handling the command's networking requirements. is made as requested.

catastrophic failure that will require hundreds of manhours and thousands of dollars spent to flx The command's network will become increasingly difficult to maintain and will eventually suffer a and bring back on-line.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	let Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lin 22/MIS	C. Line. No & Desc 22/MISSION SUPPORT	ine. No & Description ISSION SUPPORT SYSTEM		D. Act NSWC - NECK	D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK	entific NEME DI	ation VISION	, DAM
	FY 1994	4		FY 1995	ري ا		FY 1996	9	-	FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost
ADP EQUIP										Ħ	119	119

CPU upgrades, workstations, memory, disks, tape, supporting software, installation.

Current systems being replaced under this acquisition are 12 years old. Maintenance costs are high and hardware provide a reduction in overhead costs as well as faster processing turn around for the Deparment Of Defense downsizing requires doing more with less people. State of the art software due to down time and lack of available parts. Mission support requirements necesitate providing Life Cycle Manager support to Advanced Combat Direction System in direct support of the fleet. user community.

Cost to provide fleet support will not be reduced and schedules will be impacted as a result of not being By not upgrading exisiting resources, our ability to develop technology advanced Advanced Combat Direction System software using a state of the art engineering environment will not exist. able to produce efficiently.

CAPITA ()	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	ret Subr	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	17. 20. 14. 14.	† 4	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 23/NET	ne. No	C. Line. No & Description 23/NETWORK UPGRADE	tion	D. Act NSWC - NECK	D. Activity Identification  NSWC - PORT HUENEME DIVISION, DAM  NECK	entific NEME DI	ation	, DAM
	FY 1994	4		FY 1995	95		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total	Unit Ouant Cost	Unit	Total	1	Unit	Total
ADP EQUIP							, T	400		X name	180	3800

Communications Devices such as: high density terminal servers, Fiber Optics, Ethernet Hubs, Speed Network Bridges, Multiport concentrators, and associated Network Management Hardware.

The number of workstations that are being supported has grown beyond the capability of the Additionally, the network needs to support new graphics The current thicknet Ethernet backbone has become saturated as a result of new requirements and software, image processing, distributed video for briefs and training and increased number of existing network communication devices. growth. users.

In order to support the additional needs listed above the network needs to be upgraded to a higher existing software again and would allow no file sharing across the manpower levels brought on due to attrition and downsizing. Also an upgrade will grant use of reengineering processes which are Otherwise additional networks will have to be added which will necessitate buying presently becoming cost prohibitive. band width.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	et Subn 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lin 24/OPT CALS	e. No ICAL D	C. Line. No & Description 24/OPTICAL DISK STORAGE - CALS	uo -	D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, HUENEME	entific NEME DI	ation	, PORT
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost
ADP EQUIP							ਜ	350	350	1	350	350

connectors to add optical disk storage to the network to support Computer Aided Logistics (CALS). Optical disk drives, controllers, software drivers and interfacing hardware such as cables and

PHD is currently using workstations with insufficient is not backed up at the same time making it impossible to reconstruct a database from back-up sets. As a result, the ability to insure data integrity and continued operation in case of catastrophic failure is at risk. Adding a disk storage pool for engineering/logistics departments to share will Because this information is not located within a central facility, the data cost and computer room floor space required, and expand total data storage capability to support This equipment is required to reduce on-line storage data storage to process large volumes of data in such areas as evaluating vendor compliancy and make it possible to continue support and reutilize space immediately when projects are able to Computer Aided Logistics (CALS) initiatives. The project is phased from FY95 thru FY97. engineering analysis.

Failure to add additional storage capacity will require projects requiring electronic review of engineering data to be accomplished in small increments resulting in time delays and possible interruptions to meeting ships schedules.

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CAPITA (1	Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	et Subi 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Di	a te	C. Lin 25/REM - CALS	ie. No fore co	C. Line. No & Description 25/REMOTE COMPUTER SYSTEM - CALS	tion	D. Act. NSWC -	D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME	entific NEME DI	ation VISION,	PORT
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total	Unit Ouant Cost	Unit	Total	Unit Cost	Init	Total
ADP EQUIP							1	300			300	300

and device drivers, engineering graphic workstations, and interfacing hardware such as cables and Database server (processor), optical and magnetic disk drives, controllers, application software This project is phased through FY96 and FY97 connectors.

shall be capable of storing or retrieving data in the central computing facility. This will reduce At present, workstations are scattered throughout the network. Processing is insufficient to meet This project will provide a initiatives. The ability to ensure data integrity remote system capable of processing information in the functional work spaces. The remote system future requirements in such areas as evaluating vendor compliance and engineering analysis in on-line cost, make it possible to back-up information that is mission critical, and provide and continued operation in case of a catastrophic failure is at risk. accordance with Computer Aided Logistics (CALS) safeguards in case of equipment failures.

IMPACT: The command is required to evaluate contract deliverables to determine if the vendor has met CALS compliance requirements.

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	, DAM		Total Cost	250	
ates	ation	7	Unit	250	
t Estin	entific NEME DI	FY 1997	Quant	Н	
Budget Submission FY1996/1997 Biennial Budget Estimates	D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK		Total Cost	250	
Budget Submission FY1996/1997 Bienni	D. Act NSWC - NECK	9(	Unit Cost	250	
let Subi 96/199	tion	FY 1996	Unit Quant Cost	1	
A. Budg FY19	& Descrip AN HUB		Total Cost		
	Line. No 6 TRUSTED LA 1995 Unit nt Cost				
rion	C. Line. No & 26/TRUSTED LAN FY 1995  Unit T Unit T Cost C				
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ate		Total Cost		
AL PURCHASES JUSTIFIC (Dollars in Thousands)	Area/D	4	Unit Cost		
AL PURC Dollare	ısiness	FY 1994	Unit Quant Cost		
CAPITA	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	ADP EQUIP	

The trusted Local Area Network (LAN) hub consists of the hardware and operating software to connect This project is phased The resultant Local Area Network will comply with B2 multi-level requirements of the National Security Center. several heterogeneous LANs of various classifications. over multiple years beginning in FY96.

The NAVSEA Information Management Improvement Program mandates the establishment of on-line network access for message traffic and other NAVSEA organization management activities. In order to implement these requirements, a trusted hub is needed to connect networks of various The proposed equipment has been evaluated and rated by NSWC and is approved as a trustee multi classifications and architectures while still complying with NAVSEA 5239.1B. level secure hub.

programs. Lack of such a system will impact the command's efforts to standardize our processes and File transfer will continue to possible to have a truly integrated synergistic software engineering environment without some type Area Network to be isolated from administrative support system. The tactical support Local Area The Message Distribution System (MDS) will force the Office Automation Local of trusted hub to connect the various tactical support systems currently used to produce fleet continue to be isolated from our management information system. It will not be Lack of funds will force continued isolation of existing networks. improve our software Maturity Capability level. be done manually. Network will

CAPITA (1	ML PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	et Subm 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 27/UNC	LASSIF	C. Line. No & Description 27/UNCLASSIFIED SYSTEM	ion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DAI	ILGREN
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total
ADP EQUIP										н	300	300

The Unclassified System provides a cost-effective, large-scale distributed computing system for the unclassified performance computational requirements of Center programs. This investment consists of a CRAY EL-98 in FY94 and upgrades in FY96. It replaces NSWCDD's existing unclassified S&E computing system which was competitively procured in 1983 and now contains major deficiencies, including a significant shortfall in capacity, inadequate computing power and functionality, insufficient memory address space for processing large R&D problems, and increasingly obsolete technology.

programs, such as STANDARD Missile, TOMAHAWK, and the AEGIS Combat System, as well as numerous smaller programs in the Center Technology Base areas. This procurement is necessary for the system to meet the S&E computing needs of NSWCDD R&D

CAPITA)	AL PURC Dollare	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 28/NIN	C. Line. No & Desc 28/NIMIP EQUIPMENT	C. Line. No & Description 28/NIMIP EQUIPMENT		D. Activi NSWC - ALL	D. Activity Identification NSWC - ALL	entific	ation	
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP							٦	3,000	3,000	7	726	726

The impact of not making the environments, and (5) supporting peace and war-time requirements through CALS/NAVSEA IRSP standards (1) replacement of proprietary hardware, (2) competitive contracting for open system environments, investment is to: (1) remain in the sole source closed environment and (2) not be able to achieve information through seamless communication of different size platforms across devices in multiple environments. These configurations are utilized to process applications implemented at multiple Investment benefits to be realized include: NIMIP IMPLEMENTATION: The current hardware computing capability is based upon aging, proprietary based computing. This program is part of the NAVSEA Business Case which analyzed solutions for (3) lowering maintenance cost from release of near-obsolete equipment, (4) portability of improving the IRM Business Function; it was approved by NISMC as the MNS for the NIMIP. performed a program economic analysis as part of their business case. sites as well as NSWC Division unique applications. budgeted savings.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ate	C. Lin 29/SCI VISUAL EQUIPM	C. Line. No & 29/SCIENTIFIC VISUALIZATION EQUIPMENT	Des	d	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total	Ouant	Unit	Total
ADP EQUIP							VAR		525			440

Visualization and Virtual Reality Laboratory. Specifically, three current off the shelf (COTS) SGI Reality Engines with associated display, computation, sound 3D input devices will be purchased, one This investment provides high performance computing capability for the Dahlgren Divison Scientific each in FY95, FY96, and FY97. In addition, a graphics workstation and a graphics upgrade for an existing workstation will also be acquired in FY95 to enhance graphic representation and manipulation of image data.

but is inadequate to meet requirements (some data sets now require days to process). The need for This equipment now supports many programs, Currently available equipment to perform this analysis operates at various levels of efficiency, this type of analysis is rapidly increasing and is expected to continue to grow in the future. Programs supported include TOMAHAWK, AEGIS, Ship Self Defense, Close In Weapons System, depending on the complexity and quantity of the data. Standard Missile.

This equipment is required to support current customer needs as well as projected needs.

CAPITA ()	NL PURC Dollare	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Bude FY1	Budget Submission FY1996/1997 Bienn	nission Bienn	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 30/EDN	C. Line. No & Der 30/EDMICS SYSTEM	C. Line. No & Description 30/EDMICS SYSTEM		D. Ac NSWC -	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific VISION,	ation	
	FY 1994	4		FY 1995	2		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost
ADP EQUIP INSTALLATION TOTAL										1	625	625 53 678

and retrieval system for the Navy. It is an information system that can provide on-line access to Engineering Data Management Information and Control System (EDMICS) is the automated data storage engineering data. FY97 requirement for hardware is a Central Site Storage Facility.

Aproximately 60% of all request for engineering drawing images at NSWC are not filled because of estimated that a fully operational EDMICS system will reduce the need for reprocurement of technical data by 90%. It is estimated that drawing retrieval time will be reduced from 7.5 provide continuous availability of data to multiple users with print on demand capability. "not in file" aperture cards, inconsistencies in file indexing and misplaced cards. minutes (manual retrieval) to 45 seconds. EDMICS will provide substantial cost avoidances in depot productivity to include increased response time in locating engineering data and reduced reprocurement of technical data. Without the EDMICS System NSWC Crane will not have the capability to interact with other activities/contractors who have invested in what is rapidly becoming the standard for managing, distributing and exchanging engineering data throughout the Department of Defense.

CAPITA ()	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line 31/ADPT UPGRADE	ie. No T: GEN	C. Line. No & Description 31/ADPT: GENERAL FACILITY UPGRADE		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HGREN
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total
ADP EQUIP							VAR		400			400

These analyses utilize a distributed parallel paradigm enabling parallel and concurrent execution The Advanced Distributed Processing Technology (ADPT) thrust provides an environment for software development and analysis and the capability to process both unclassified and classified data. of software. This procurement consists of memory, disk, and graphics upgrades as well as file server and workstation upgrades for previously purchased equipment.

workstations' performance; and by enhancing graphic tools. This thrust supports many programs including AEGIS, Artificial Neural Networks (ANN), Tri-Service Strike ATD, ASTER, and Multisensor analyze larger, more complex problems and decreasing analysis time; by improving the individual These upgrades will improve productivity by increasing the server speed; by allowing users to

The ability to perform software development and analysis will be severely hampered without this Productivity improvements will not be accomplished. investment.

CAPIT?	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 32/ASW PERIPH	Line. No & De ASW FACILITY: IPHERAL SWITC	, m , , , ,		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	5		FY 1996	و	٠	FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit nt Cost	Total Cost	Unit Ouant Cost	Unit	Total	Ouant	Unit	Total
ADP EQUIP							VAR		100			

The Navy Tactical Data Standard (NTDS) Switch System consists of high speed electronic switch components for rapid, efficient and low risk reconfiguration of tactical computer systems. components include controller modules, switch nodes, and other related subcomponents. The utilization of tactical equipment is limited by the capability to reconfigure a tactical system automated switch system eliminates the risk and provides a rapid reconfiguration capability for the desired ship variant. The system supports combat systems development and integration, including to simulate a particular ship variant. Systems reconfiguration is a common activity requiring manual cable swaps, directly translating into time delays and high risk of equipment damage. systems software development, integration and testing.

the re-cabling required. Increased manpower costs for reconfiguring tactical interfaces will be unavoidable. High risk, high cost hardware repairs will continue to be required due to the manual switching of systems to achieve the desired configuration. Unavoidable delays will be experienced Some configurations needed will not be possible due to the complexity of Limited capability for rapid reconfiguration of tactical computer systems will continue if this as technical personnnel attempt to execute time-consuming system reconfiguration and unexpected damage to hardware occurs. investment is not made.

RISC based workstations running industry standard software and interfacing with input (digitizers, scanners) processing software and output (laser plotters) devices.

is inefficient and extremely labor intensive. The proposed equipment will increase efficiency by enabling simultaneous review and approval and allow high speed production of finished drawings and This equipment is critical to the acquisition, development, and production of engineering drawings which are currently completed in a manual method. Currently, drawings are developed or changed by individual draftsmen using master drawings and a long serial system of review and approval. Final production of needed drawings is done via Ozlid blueprint machines or on microfiche. This method documentation for distribution.

Failure to procure this equipment will prevent productivity increases and will impact the responsiveness of engineering support to customers.

CAPITA ()	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin	C. Line. No & Des 34/CAM SYSTEM (2)	<pre>C. Line. No &amp; Description 34/CAM SYSTEM (2)</pre>	tion	D. Act NSWC -	D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE	entific VISION,	ation	VILLE
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							П	125	125			

Open systems, CALS Compliant, High Performance Advanced 2D and 3D Surfacing and Solid Modeling Computer Aided Manufacturing System.

with existing Applicon software and have the ability to share and exchange data with other hardware utilizing Applicon and other commercial software via a common network. capability to support several, new Computer Numerical Control (CNC) Machine Tools in the CPP budget for the next five years. The additional equipment is to be stand alone workstations compatibile Louisville site. This procurement is a second phase purchase to provide an increase in CAM Computer Aided Manufacturing (CAM) initiative supports all production projects at the

These procurements will make Without funding of a second phase procurement of CAM workstations, we will be able to fully reasonable level of support, we will be required to work extensive ammounts of overtime and shift the ratio of CNC Machine Tools to supporting Computer Aided Manufacturing (CAM) equipment even The Capital Equipment Budget for the next five years indicate several, new Computer Numerical workloaded immediately, resulting in poor machine tool utilization. In order to provide a support future Capital Equipment procurements. Newly installed machine tools will not be (CNC) Machine Tools as well as conventional to CNC retrofits. Control wider.

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I)	Dollar	AD FORCHASES JUSTIFIC (Dollars in Thousands)	(Dollars in Thousands)	TTON		A. Budg FY19	let Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line 35/CME Upgrade	ne. No g RSX P	C. Line. No & Description 35/CME RSX Processor Upgrade	tion	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA	entific DIVISI	ation ON, PA	NAMA
	FY 1994	4		FY 1995	95		FY 1996	9		FV 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Ouant	Unit	Total	Unit Onant Cost	Unit	Total		Unit	Total
ADP EQUIP				1				175		A COO	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	COBC

RSX processor upgrade to the 9780A computer in the Countermeasures Evaluator.

This upgrade will replace 37 obsolete central processing unit boards with one current technology processing board that will outperform the 37 boards while consuming approximately \$5,000 less electricity per year. Additionally, maintainence costs will be reduced by \$61,000 per year resulting in total savings of \$66,000 per year.

If this procurement is not made, the potential savings of \$66K will not be achieved.

CAPITA ()	AL PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	FION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line 36/CORP UPGRADE	e. No Porate E	<pre>C. Line. No &amp; Description 36/CORPORATE DATABASE UPGRADE</pre>		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ION, DA	HLGREN
	FY 1994	4		FY 1995	2		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit nt Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP							VAR		326			

It will be augmented by database software and data retrieval software to be acquired in FY95, FY96, A Center-wide database providing program management and project information is available to scientists, engineers, program and line managers. This database will be constructed with an open workstations in FY95 and FY96, as well as a database server and data archiving hardware in FY96. This procurement consists of client system architecture which is compliant with FIPS 151 and supported by relational database management systems which are compliant with FIPS 127.

compiling, analyzing and reporting information, thus allowing more time for technical work; (c) reduce reliance on hardcopy reports and replace them with electronic query; and (d) reduce printing maintain separate, duplicative automated systems for maintaining and tracking program, project and management information; (b) improve productivity of technical personnel by requiring less time for improve productivity in the following ways: (a) eliminate the need for each technical program to The Corporate Database is necessary to host a repository of information. This acquisition will distribution costs by allowing distributed printing "on-location" for the reports that are necessary.

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manual data sources; separate automated systems to collect and manipulate data will continue to be Without the Corporate Database, productivity gains relative to managing and reporting information in the technical programs cannot be achieved. Each program will continue to rely on a variety of build and maintained, thus increasing costs and reducing the time available for performing technical tasks.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 37/Con	ie. No	C. Line. No & Description 37/Contracts Filing System		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific	ation ON, PA	NAMA
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total
ADP EQUIP							T	295	295			

Laser disk filing system to replace current manual filing system for Station contracts.

each Considerable manpower is currently being expended inefficiently developing, maintaining, and retrieving information from hardcopy files in the Station's contracting offices. Additionally, valuable space is being taken up by the bulky files, particularly by files that are closed but must be retained. There is also the constant problem of degradation of the paper files as they are researched or examined during audits and The proposed equipment will provide an economical means of storage, search, and retrieval from individual's workstation or from other Station offices, thereby saving time of employee travel The Contracts Filing System is a laser disk optical filing system that takes advantage of the latest technology for storing and retrieving large files. the current file areas.

If this procurement is not completed, the current wasteful situation will continue to exist and the advantages of optical storage capability networked to computers in other offices via a local area network will be ignored.

CAPITAL (Do	PURCI	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Bude FY1	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	ates	
B. Component/Business Area/Date DON/R&D	iness	Area/Da	ate	C. Lir 38/DIC WORKS1	e. No SITAL I	C. Line. No & Description 38/DIGITAL TECHNOLOGY WORKSTATIONS & DISK DRIVES	ption Y DRIVES	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
F	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total
ADP EQUIP										VAR		130

This investment will provide SGI Graphics workstations and upgrade existing DEC stations to support These workstations will be used to demonstrate 3D graphics, high-quality video in graphics, speech recognition, and the use advanced multi-media concepts and their combat systems applications. the development of advanced realtime operating systems.

These advances will improve the quality and effectiveness of man-machine interfaces by providing a greater information bandwidth between the operator and computing equipment so more information can The development of advanced training. This procurement supports combat system prototyping efforts such as HiPer-D and future ship technology programs such as ship automation and autonomic ship programs. In addition, the realtime operating systems efforts will be applicable to a wide range of next generation realtime realtime operating systems is critical to future combat systems development, operations, and be transferred, analyzed, and acted upon in a shorter period of time. systems.

systems development, operations and training through the increased bandwidth provided by the audio, The graphics technology has the capability of providing a very significant improvement in combat It is one of the enabling technologies for manpower reduction in future combat This technology represents the future of man-machine An advanced realtime operating system is critical to future combat systems. 3D graphics, and high-quality video. interfaces.

CAPIT.	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	ates	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	a te	C. Lir 39/ENG	e. No	C. Line. No & Description 39/ENG & TECH WORKSTATIONS		D. Act	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific VISION,	ation	
	FY 1994	4		FY 199	995		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total Cost
ADP EQUIP							Н	155	155		į	

Intergraph NAVSEA Computer Aided Design-2 Engineering and Technical Documentation Workstations. (CAD-2) Systems.

The workstations would replace old fashioned manual methods of modeling and analysis. Computer Aided Engineering programs will allow shipboard electrical and mechanical safety concerns to be more easily discovered and corrected. More human resources will also be available to study safety concerns. New equipment and software will free engineers and technicians to more thoroughly address This project is for the Advanced Navigation Command & Control Engineering Branch. environmental concerns.

illustration, scanning, mechanical and electrical analysis capabilities for the Advanced Navagation The alternative is to remain with the current manual Provide technical Provide computer aided drafting and engineering modeling capabilities. Command and Control Engineering Branch.

CAPITA ()	IL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 40/ENG	ne. No FINEERI	C. Line. No & Description 40/ENGINEERING ENVIRONMENT		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	35		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP							н	09	09	VAR		260
		11										

It consists of two SGI workstation upgrades in FY96 and in FY97 as well as a memory/processor, computer server, and two additional workstations in FY97. This thrust provides a corporate environment for the design, documentation, analysis, as well as modeling and simulation capabilities, for weapons systems This investment is required to support the Engineering Environment thrust. development. This equipment provides expanded mechanical design capabilities, analyses, and prototyping and will increase productivity by strealining the design process. Programs supported include Vertical Launch System (VLS), STANDARD Missile, Short Range Anti-tank Weapon (SRAW), and Shoulder-Launched Multi-purpose Assault Weapon (SMAW).

Without it, additional labor will be required and some tasks will be difficult, if not impossible, to perform. This equipment is needed to effectively perform projected tasking.

CAPITA	L PURC	AL PURCHASES JUSTIFIC	CAPITAL PURCHASES JUSTIFICATION	TION		A. Budg	Budget Submission	nission				
	100	7777	Japanas			FYIS	36/199	7 Bienn	FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lir 41/ENC PC	ne. No SINEERI	C. Line. No & Description 41/ENGINEERING LIBRARY - PC	otion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA	entific DIVISI	ation ON, PA	NAMA
	FY 1994	14		FY 1995	95		FY 1996	9		FV 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total	Unit Cost	Unit	Total	3	Unit	Total
							2	2000	2002		2802	COBC
ADP EQUIP										ਜ	220	220

The upgrade will provide scanner input stations, optical character recognition capability, hard copy output devices and associated servers that will connect to the LAN/ethernet communications Expand/upgrade the capability for on-line engineering and related Engineering Library services. network to distribute the services to users. Currently the Engineering Library maintains engineering drawings, technical documents and reference access to this information must visit the Engineering Library and manually search for and copy from single copy media on file. Additionally, access to CD-ROM services is limited to a single PC which frequently leaves engineers waiting to gain access due to high demand. A limited pilot system has been installed to test and assess the advantages of accessing Engineering Library services from the desiring materials on microfilm, microfiche and hard copy. Engineers, technicians and other users The results have indicated the need to expand the capability to all users.

Failure to complete this project would prevent achievement of potential time savings and increased convenience to users.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)  B. Component/Business Area/Date C.  DON/R&D  FY 1994  ELEMENTS OF Unit Total COST Quant Cost Quar

architecture and relational database. Associated database software will also be acquired, as will productivity. Three workstations (one each in FY95, FY96, and FY97) will be procured to increase the number of users that access and use the new streamlined processes using the Client/Server This investment expands the existing Front-End System capacity and capabilities developed to implement and support reengineered business processes, cut cost and improve overall process be applications and forms software.

manual/semi-automated processes; (2) implement reengineered processes but limit number of users who and/or slower processes as the number of resources decline. Alternative (2) allows cost savings to be achieved but suboptimizes the amounts by restricting the number of reengineered processes to be deployed and the number of people who can access them. Alternative (3) allows the cost reductions Current processes are labor intensive, slow, cumbersome, too costly to operate and add substantial can access and use the new processes; and (3) expand system capabilities to allow distribution of software tools and computing capabilities necessary to reduce process costs and inefficiencies as This investment provides the new processes across the organization. Alternative (1) locks in higher costs of doing business cost to NSWCDD customer products. Three alternatives exist: (1) continue reliance on and productivity benefits to be maximized across the organization. DOD downsizing continues.

This investment will reduce operational cost and achieve large scale productivity gains in a time of declining resources and sponsor funds. NSWCDD sponsors will be impacted through (1) higher manhour rates charged for technical work and (2) more direct labor charged for program management support activities.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	4. 0. 0. 0.	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lir 43/IPE	le. No	C. Line. No & Description 43/IPE WORKSTATIONS		D. Act	D. Activity Identification  NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	ILGREN
	FY 1994	4		FY 1995	35		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP										r.	50	250

delegate development tasks to the lowest cost-part of the integrated environment by partitioning of The Integrated Programming Environment (IPE) supports software development by integrating the The intent is to capabilities of graphics desktop computers with existing computer systems. tasks to the most efficient machine for that task.

for resources inhibits productivity. The IPE provides a method whereby more people can simultaneously access both graphical development environments and test software systems through the method to significantly enhance the software development process by adding functionality currently The IPE initiative is not simply a replacement or upgrade of current capabilities, it represents available only in a very limited sense. For example, with the current small set of hardware and software available, only a small number of developers can access the system so that a contention interconnection with other computing systems. An economic analysis has been performed for this investment yielding a Savings to Investment Ratio of 1.2.

addressing proposed future system capabilities such as rapid re-targeting or accurate re-entry Currently, there is no low-cost IPE that supports proof of concept research and development

CAPITA (1	L PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin	C. Line. No & Des	C. Line. No & Description 44/LIGHTS OUT PGC	tion	D. Act NSWC - NECK	D. Activity Identification NSWC - PORT HUENEME DIVISION, NECK	entific NEME DI	ation	, DAM
	FY 1994	4		FY 1995	5		FY 1996	و		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
ADP EQUIP							П	100	100	τ	118	118

Workstation, memory, disk, software.

οĘ major support for building Advanced Combat Direction System programs for fleet delivery. PGC is comprised of 14 main frame computer systems and is staffed 24 hours a day. Seventy five percent automated back up capabilities totally eliminating the need for operator support on the midnight shift. This project spans two fiscal years; FY 96 and FY 97. Recent directives project a 50% cut in our military Currently our Program Generation Center (PGC) provides all The lights out project will provide central system monitoring failure alerting, and the current staffing is military personnel. This is a phased project (FY96-97). manning.

Without this equipment The Program Generation Center (PGC) absolutely must operate 24 hours a day. Without this equipment we will have to hire contractors to provide PHD support for Advanced Combat Direction System (ACDS) This approach will most certainly increase production costs because all after-hours support is currently provided by military personnel. program production.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	1. 0. 0.	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ate	C. Lin 45/LIN	lne. No & Des INKS HARDWARE	ne. No & Description NKS HARDWARE		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	ILGREN
	FY 1994	4		FY 1995			FY 1996	ဖ		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total
ADP EQUIP							2	50	100	2	50	100

installed base of user devices, scientists and engineers can share information across these subnets and can access standard Center applications for their program management and engineering support. utilizing Links unix-based multi-processor computers and off-the-shelf software to connect the The Links project will provide standard connectivity between existing personal computers and desktop devices currently configured as multiple subnets connected to the NSWCDD backbone.

An economic analysis has been performed for this investment yielding communicate with. In addition, Links will provide a standard access method to Center applications and engineers that are decentralized on different subnets (e.g., Novell, DECNET, Appletalk, NSWCNET) to easily share information. By utilizing Links, the different subnets will not have to The Links standard system configuration will allow the PCs and desk top devices of the scientists duplicate effort and spend resources to provide connectivity with each subnet they need to a Savings to Investment Ratio (SIR) of 1.1. that each subnet can utilize.

Without Links, each subnet will have to provide a mechanism for sharing information with each of the different subnets that their users need to communicate with, or have no communication and sharing of information outside of their own subnet.

CAPITA (1	L PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Bud FY1	Budget Submission FY1996/1997 Blenn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	a te	C. Lin 46/Min Simula	Line. No & Mine Warfa wlation WS	Line. No & Description Mine Warfare Modeling & Wlation WS	ption ling &	D. Act NSWC - CITY	Line. No & Description D. Activity Identification Mine Warfare Modeling & NSWC - DAHLGREN DIVISION, PANAMA CITY	entific DIVISI	ation ON, PA	NAMA
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total	Ouant	Unit	Total Cost	Unit Cost	Unit	Total
ADP EQUIP INSTALLATION TOTAL							t			, en	54	162
												163

Purchase TAC-3 systems to host the Mine Warfare simulation capability.

be used to develop a more generalized simulation thus eliminating redundant simulation development. The TAC system would provide workstation performance compatible with UNIX development environments system level with a different simulation being developed for each system. This procurement would Currently, simulation of mine warfare systems is being performed on an individual This TAC procurement will enable COASTSYSTA to provide generalized mine warfare simulation along with the capability of integration aboard fleet ships. capabilities.

simulation to fleet commanders and a continued redundancy in simulation development resulting in Not purchasing this TAC system would result in the inability to provide adequate modeling and wasted sponsor funds.

Submission 1997 Biennial Budget Estimates	D. Activi	1996 FY 1997	Unit Total Unit Total	~	beyond economical repair and will reduce investment are Therminal Servers, LIMDIS CAD II
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	tivity Ide Varfare Ce		Total Cost	857	
	D. Act	و	Unit		mical rere Ther
	ption p	FY 199	Quant	VAR	d econo
A. Budget FY1996,	& Description Equip Rep		Total Cost		is beyond of investion.
	ie. No ic ADP : 100K	5	Unit Cost		that type s Stat
LION	C. Line. No 61/Misc ADP Items< 100K	FY 1995	Quant		ment) equipment s of this D Graphics
JUSTIFICATION housands)	a te		Total Cost		(Replacement) aged ADP equip Examples of , and a 3D Gra
AL PURCHASES JUSTIFIC (Dollars in Thousands)	Area/Da	4	Unit Cost	V	ซั • มั
CAPITAL PURCHASES (Dollars in T	ısiness	FY 1994	Quant		Justification: stment replaces a and maintenance. Il Capacity Lazer,
CAPITA	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	ADP EQUIP	Narrative Justification: This investment replaces a downtime and maintenance. System, Hi Capacity Lazer,

CAPITA ()	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg	let Subr	Budget Submission FY1996/1997 Bional				
							(27/25	PICILII		EBCIM	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 47/0ff	ice Au	Line. No & Description Office Automation	tion	D. Act	D. Activity Identification	entific	ation	
					ations	lications Network		CITY	Children	TETATO	ON, PA	NAMA
	FY 1994			FY 1995	15		FY 1996	9	·	FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Ouant	Unit	Total	Unit	Unit	Total		Unit	Total
						3222	Xadiic	2000	COBC	Vuant Cost	COBL	Cost
ADP EQUIP										<b>H</b>	450	450

A system of distributed servers providing shared access to common office automation software, including word processing, business graphics, spreadsheet, and scheduling applications.

COASTSYSTA employees typically utilize single-license software for office automation tasks with the flexibility but forces personnel to spend time on PC configuration maintenance that could be spent In addition, COASTSYSTA pays for much more software than is simultaneous software resident on each employee's personal computer (PC). This approach maximizes individual use. Sharing software via an applications network will result in considerable savings. on their actual duties.

employee who has a requirement for a software package, however transient or infrequent that need may be, will continue to acquire independent copies of software. Potential savings will not be Failure to acquire and deploy this system will result in perpetuation of the status quo.

CAPIT;	AL PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	ate	C. Lin 48/REE SIMULA	C. Line. No & Des 48/REENTRY SYSTEM SIMULATOR UPGRADE	ine. No & Description EENTRY SYSTEM LATOR UPGRADE		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
ADP EQUIP		212-12-1					VAR		200	1		
Marrotine Tratification (Declaration)	* 4 4 7 7 4 4 4	(D)		1 4								

aging VAX 11/785 with workstations and provide an uninterruptible power supply to ensure continuous The Reentry System Simulator is used to conduct sophisticated aerothermal, structural, and reentry trajectory analyses, and for data reduction of wind tunnel tests. This investment will replace an processing on the system.

11/785. The VAX 11/785 has become very expensive to maintain and provides inadequate capability to perform the analysis and simulation now required. Performance will be greatly increased, allowing The Reentry System Simulator computer system currently consists of a VAX 4000 computer and a VAX the simulation of more advanced reentry systems requiring a high speed computing environment. simulator supports strategic weapons systems such as Strategic Defense Initiative (SDI), MK-5 Reentry Body Program, Reentry Technology Efforts, and Weapon and Spacecraft Materials.

current computer facility. Without these upgrades, we will be unable to meet program requirements. Structural analysis capability and the ability to analyze fluid flows is greatly restricted by our

CAPITA ()	L PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	Estim	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ıte	C. Lin 49/TAC COMPUT	Line. No & De /TACTICAL ADVA MPUTER NETWORK	W 🔀		D. Act NSWC -	D. Activity Identification NSWC - CRANE DIVISION, CRANE	ntific ISION,	ation	
-	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total
ADP EQUIP							1	100	100			

specifications may be heirarchically modeled and validated more efficiently to ensure specification This system will consist of the hardware and software tools necessary to intergrate computer aided Through the use of these tools, system design tools and existing hardware simulation tools. compliance.

This project will provide a productivity increase due to faster comprehension of module design and therefore a faster turn around time for design analysis and technical assessments to the program In order to comply with projected government software/communications standards this network is vital.

This will allow the development of test program sets to be performed more efficiently, for example, In addition to the inherent speed improvement of this system, will be the an average test engineer can now develope 3 test programs per year, which could be improved to 6 electronic design data directly for evaluation and developments which eliminates costly data ease of data transportability between different networks. This system will allow us to use test programs per year. transfer errors.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)  B. Component/Business Area/Date C. DON/R&D  FY 1994  FY 1994
Total Unit

Risk based workstations to be used to perform network and workstation management.

workstations that need various system administrator functions which include, but are not limited Risk based workstations are used by the command to develop, maintain, integrate and produce We currently have to: system backups, network management, user account management, software and hardware tactical programs for militarized workstations aboard US Navy ships. installations, configuration management and user assistance.

Additionally, the quantity of support software to be supported by the system administration team is In order to support the additional workload dictated by increasingly technical management systems, rapidly increasing. Team memebers must be familiar with all supporting software inorder to aid the number of workstations need to be expanded to allow all system administrator team members access, otherwise team members will not be able to quickly respond to problems when reported. The only way to accomplish this is to procure more workstations.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ate	C. Lin 51/MOI CENTER	Line. No & De/MODELING AND NTER EQUIPMENT	1 12 122	tion	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	2		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
ADP EQUIP							VAR		700	VAR		555

to SGI Reality Engines in FY95, three additional SGI 4CPU Reality Engine2s in FY96 with upgrades in 4CPU Reality Engine2 and an SGI Onyx 2CPU VTX in FY94, upgrading two existing SGI 4D/340 computers The following specifics are planned: an SGI Onyx This procurement provides high performance computing equipment to support multi-warfare, force-level simulations and model development.

The speed and capacities of these processors are the The Defense Modeling and Simulation Initiative (DMSI) was begun in 1991 to strengthen Modeling and Simulation (M&S) applications within DOD. To achieve expected contributions requires widespread, cornerstones of multimedia and synthetic environments. It was discovered during the WAR BREAKER no longer only text and numeric; representation of video and graphic images, and compression techniques to enhance storage and transmission must be addressed within database contexts to "Zen Regard" exercises that 4 CPU Onyx machines are required to handle the communication and DMSI supports those aspects of the overall environment that tie together DOD components as broadening the warfighting effectiveness. highly capable, and integrated M&S environments based on common DOD-wide architectures, methodologies, and interoperability standards. suppport display and processing environments. processing loads in large exercises.

investments to continue effective interoperations with Air Force, Army, and ARPA simulations in WAR levels of aggregation, operating at varying levels of resolution, with a diverse treatment of time. NSWCDD requires these Concepts of force at sea, on land, or in the air and within the operational environment are likely The M&S community recognizes the need for interoperability of models and simulations at different to be different in these simulations, yet the need to interoperate remains. BREAKER.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimaton	1	1	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	a te	C. Lir 52/ADV CONTRC	C. Line. No & 52/ADVANCED WE.	Dee		D. Act NSWC -	D. Activity Identification  NSWC - DAHLGREN DIVISION, DAHLGREN	ntific	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	35		FY 1996	9		FY 1997	1	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Unit Total	Unit Ouant Cost	Unit	Total	Unit Onant Cost	Unit	Total
ADP EQUIP							VAR		385	VAR		455

investment consists of two workstations, Futurebus+ cardcages, and FDDI lan nodes in FY95; The Advanced Weapon Control System will provide a real-time, far-term weapon control simulation/development tool for demonstration, validation, and assessment of technological advanced display system and Rational-Apex for networked engineering workstations in FY96. improvements in control elements, processing, interfaces, and display environments.

and demonstrate technological improvements in control elements, processing, interfaces, and display This equipment upgrades and expands capabilities for the development of automated, quick reaction control systems dealing with ship self-defense. It is essential to effectively validate, assess environments. These efforts support the Ship Self Defense Program, Close In Weapons Systems (CIWS), and Warfighting Improvement Project (WIP).

Failure to procure this equipment will unduly impact efficiency and productivity of systems development and thereby impact the deployment of new systems.

CAPITA ()	M PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	a a a	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line. 53/ALGOR. FACILITY COMPUTER	C. Line. No & Desc 53/ALGORITHM DEVEL FACILITY: SGI ONYX COMPUTER	Line. No & Description /ALGORITHM DEVELOPMENT CILITY: SGI ONYX	c	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	5		FY 1996	9		FV 1997	-	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Ouant	Unit	Total	Unit Onant Cost	Unit	Total		Unit	Total
ADP EQUIP							9	20		Vuant Cost	COBC	Cost

two-processor parallel computing engine (Onyx computer) that will be expanded to eight processors parallel processing and high speed visualization. The FY95 procurement will provide the basic The Algorithm Development Facility supports a new approach to near real time operations with in FY96, providing near real-time simulation support.

processing/satellite multispectral technology. This equipment will support new strike warfare and dependence on simulation and visualization. In order to meet future strike warfare needs, NSWCDD systems) coupled with reduced DOD funding for hardware prototyping and test is forcing increased simulations. These purchases support high speed visualization, high speed simulation, and image must be able to (a) develop, demonstrate, and test future strike warfare concepts using complex (near-real time) simulations, and (b) provide near-real time visualization support for complex The complexity of large strike warfare systems (from detect systems to control and engagement upper tier anti-tactical ballistic missile simulation and analysis studies.

sustain serial operations that take minutes to hours. Strike operations with the next generation critical) targets in near-real time, the mission planning and weapon contrl systems can no longer (particularly counter battery fire). Driven by the need to respond against highly mobile (time High speed algorithms, that can operate in parallel are essential for support of strike warfare of weapons (ballistic missiles) must take place in a total engagement time budget measured in

CAPITA	L PURC	HASES OF	CAPITAL PURCHASES JUSTIFICATION	rion		A. Budg	Budget Submission	nission				
	מדדמו	ACTION THE THOUSANDS	usanas)			FY15	96/1997	Bienni	FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Lir 54/ARE	le. No tay pro	Line. No & Description ARRAY PROCESSORS		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION DANICES	entific	ation	TI CDEN
	FY 1994	14		FY 1995	35		FV 1996	,		7 7 5 6	100	MANGER
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ELEMENTS OF COST	Ouant Coat	Unit	Total	5	Unit			Unit	Total		Unit	Total
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ADP EQUIP										VAR		175
												ì

The Algorithm Development Network Thrust provides the environment to research various signal/data heterogeneous mix of processors operating with a mix of languages in various architectural processing algorithms and candidate implementation strategies. This equipment provides a workstation configurations.

which will further reduce insertion costs. These strategies are in direct support of at least five of the DOD top-twenty technology thrusts. This thrust area supports specific strategic computing Prototyping of these algorithms and new architectural concepts will help solve real-time shipboard techniques. The designs will support strong reuse where various at-sea configurations are built, computer needs. The structured techniques will also provide insight to productivity enhancement thrusts in various NAVSEA/PEO programs (AN/SQQ-89, SSTD, Mine Warfare, ASTO, and SEA 06K, PMS-400/AEGIS) and technology programs in ONT (ASW/ECS Blocks), DARPA (SCI), and SPAWAR (NGCR).

various algorithms, but without the supporting hardware and software the required experimentation cannot be accomplished. The proposed procurement strategy enables development, experimentation and Researchers can hypothesize As the programs within the current missions evolve , NSWCDD needs to maintain its competitive "lessons learned" directly applicable to the sponsors trying to evolve to COTS solutions. knowledge in order to provide sponsors correct and timely guidance. capability is presently unavailable.

CAPITA (1	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	ret Subr 96/1997	Budget Submission FX1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	c. Lin 55/CLA	SSIFIE	Line. No & Description CLASSIFIED NETWORK	tion	D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME	ntific EME DI	ation	, PORT
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total
ADP EQUIP							1	158	158			

high-speed networking bridges/routers, optical fiber transmission equipment, telecommunication Networking devices such as high density terminal servers, multi-port Ethernet concentrators, devices, and high-speed encryption devices.

signature approval To satisfy the command's growing need for the transmission of classified data, authority, and transition to a full functioning "paperless office" environment.

The command will be unable to transmit classified data and will be unable to handle NAVSEA's and the Engineering Project Offices classified transmission requirements.

High-end multi-processor Silicon Graphics 3-dimensional computational graphics engine workstation.

The models, algorithms, and technical expertise together into an integrated simulation capability. Required by the Mine Warfare Analysis And Tactics Facility (MATF) to bring basic mine warfare MATF will allow the R&D and opertational communities to participate in the joint synthetic battlefield environment becoming available throughout DOD. The graphics display system will provide real time display of the simulated operations to participants.

If this system is not procured, the MATF will not have the visual interface to allow users to participate in the simulated operations.

CAPIT,	AL PURC Dollar	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	get Subi	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	7. 20 4. 4.	4	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	ate	C. Lir 57/CM	ne. No E Works	Line. No & Description /CME Workstations	ption	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA	entific DIVISI	ation ON, PA	NAMA
	FY 1994	4		FY 1995	35		FY 1996	و		FV 1007		
ELEMENTS OF		Unit	Total		Unit	Total		Ifnit	T 0 + 0 F	CCT 77		
COST	Quant Cost	Cost	Cost	Quant	int Cost	Cost	Quant Cost	Cost	Cost	Ouant Cost	Cost	Total
ADP EQUIP							VAR		150			150

Eight Digital Equipment Corporation ALPHA workstations.

These workstations will provide Required by the Mine Warfare Analysis And Tactics Facility (MATF) to bring the basic mine warfare the ability to network the various participants at different locations together during simulated models, algorithms, and technical expertise together into an integrated simulation capability. MATF will allow the R&D and operational communities to participate in the joint synthetic battlefield environment that is becoming available throughout DOD.

If these workstations are not procured, the MATF will not be able to function and customers requiring simulated operations and studies will have to be turned away.

AL PUI (Dolla usiner FY 1:		CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands) FY1996/1997 Biennial Budget Estimates	B. Component/Business Area/Date C. Line. No & Description D. Activity Identification 58/DEFENSE MESSAGING (DMS) NSWC - PORT HUENEME DIVISION, PORT HUENEME	FY 1994 FY 1995 FY 1996 FY 1997	Init Total Unit	
	TAL PUF (Dolla Busines FY 10	CHASES JU re in Thou	38 Area/Da	994		

multiple year endeavor, encompassing both FY95 and FY97. This project is a continuation of This project is a Specialized encryption equipment is necessary to meet the needs of PHD NSWC as the Naval Telecommunications Center (NTCC) Pt. Mugu is in the process of closing. endeavor scheduled in FY95.

traffic in paper form. Additionally NTCC Pt Mugu will be closing early in FY95. This will provide the necessary equipment, software, and maintenance support to put in place an automated process to adequately control and distribute Naval Messages in the new paperless environment without the Mugu and their parent command have discontinued the practice of providing Naval Message This also is driven by the early implementation of the navy wide Defense Message System (DMS). support of NTCC Pt. Mugu.

efficient support to our fleet customers. Our ability to receive and respond to urgent Casualty Reports The readiness of the Without this new equipment the command will be unable to adequately provide timely and to provide fighting capability on short notice will be diminished. (CASREP) and technical assist requests will be severely limited.

CAPITA ()	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	FION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ateg	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ate	C. Lin 59/PRO WORKST	C. Line. No 8 59/PROTOTYPII WORKSTATIONS	k Des		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	<b>4</b>		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total
ADP EQUIP										VAR		200

computers and networks. This capability supports the newly emerging operational requirement for This investment networking protocols and (2) integration of high speed parallel processors with conventional The Prototying Laboratory thrust provides for (1) real time opeating systems and computer time critical strike warfare rs well as the mission and route planning efforts. provides TAC IV workstations in FY95 and TAC V workstations/servers in FY97. Strike warfare weapons must respond to new requirements for a wide variety of new time critical and joint war fighting strategies and weapons which will directly impact the future uses of cruise missiles and influence the development of a new class of strike weapons. Future versions of cruise missiles will be required to attack as well as evade mobile defense sites, respond to joint air operating systems, missions planning, and weapon control systems for the current versions are not sufficiently responsive to meet these future requirements. These workstations will support three technical thrusts vital to developing new principal strike weapons product lines, namely (1) real time operating systems for mission planning and advanced weapon control systems, (2) high speed networking to support the demands for increased near-real time database management (imagery and tasking orders in hours or minutes, and search out and destroy mobile (time critical) weapons. mobile target/defense site attributes), and (3) development and test of new computer/network architectures that support the addition of parallel processors.

computing. The current laboratory is not capable of prototyping and testing the complex systems) will grow enormously with the addition of real time computing, real time networking, and The complexity of large strike warfare systems (from detect systems to control and engagement computer systems required for future strike weapons. parallel

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					Total	COBC	130
	ates	ation ION,	1		Unit	COBC	130
	t Estin	entific K DIVIS	TV 1007	77		Xuant	Н.
	FY1996/1997 Biennial Budget Estimates	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK			Total	200	
Budget Submission	7 Bienn	D. Activ NSWC - CA	9		Unit		
ret Subr	96/199	tion	FY 1996		Ouant Cost		
A. Budo	FY19	C. Line. No & Description 60/SPARC/Assessment System			Total Cost		
		RC/Ass	5		Unit nt Cost		
LION		C. Lin 60/SPA	FY 1995		Quant		
CAPITAL PURCHASES JUSTIFICATION	usands)	a te			Total Cost		
HASES JI	(Dollars in Thousands)	Area/Da	4		Unit Cost		
L PURC	Dollar	ısiness	FY 1994		Unit Quant Cost		
CAPITA		B. Component/Business Area/Date DON/R&D			ELEMENTS OF COST		ADP EQUIP

workstation, enhancenment upgrade of three existing workstations from 50 mips to 80 mips, and a multiprocessor batch mode-compute-server, with each processor of at least 200 mips capability. This project will procure an additional UNIX-based 100 million instructions per second (mips)

The Simulation Planning & Analysis Research Center (SPARC) at the Carderock Division, Naval Surface order to maintain reasonable turnaround times. This project will boost SPARC to 1700 mips. Without this increase sponsor schedules cannot be met, jeopardizing about \$4.5M in direct funding. SPARC design, of interest to the Department of Defense (DoD) are mathematical models exceeding 500,000 lines of computer code. An increase in processing speed to at least 1200 mips is necessary in is presently capable of performing 440 mips. Current simulations, including simulation based Warfare Center (CARDEROCKDIV, NSWC) performs simulations and assessments of naval systems.

Failure to fund this project will result in continued high contracting costs in order to meet customer requirements and the loss of additional direct revenue from the inability to support additional work with this facility.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION  (\$ in Thousands)  B. Component/Business Area/Date  C. Line No. & Item Description  A A V. P. B. D. D. B. D. D. B. D. D. B. D. D. B. D. D. D. D. D. D. D. D. D. D. D. D. D.	(\$ in Thousands)  C. Line No. & Item Description	HASES J	ITSI	1			FY 1996/FY 1997 President"s Budget	resident"s Bud	탏		
	No. & Item Maintenano	(SII		FICATI	NO						
	ILCIN	C. Line No. & Item Description Depot Maintenance Standard Sy Equipment	/stem (	# dard System (DMSS) ADPE		D. Aci	D. Activity Identification Joint Logistics Systems Center	ation ms Center			
12.	FY 1994		H	FY 1995			FY 1996			FY 1997	
Element of Cost Qty	Cost	Total	\$	Unit	Total Cost	Š	Unit	Total	Æ)	Unit Cost	Total Cost
Hardware:		0.0			249.0			0.771			0'0
User Level		0.0			75.0			283.0			0.0
TOTAL		0.0			324.0			460.0			0.0

Narrative Justification:

These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics System Center to the Navy R&D maintenance depots. During the recent budget review, the responsibility for acquisition of hardware was transferred from the JLSC to the Military Services The Depot Maintenance Standard System (DMSS) was created in response to the DoD initiative to standardize logistics systems across DoD and the Military Services' related Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AJS development efforts and commercially available systems. These efforts have sustained the need to modernize the platforms and hardware represented by this submittal. need for a more robust information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the

strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through the process improvements delivered by DMSS applications to support the Depot Maintenance Improved Functional Baseline (IFB). These improvements DMSS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant

Reduced inventories through improved planning and tracking Reduced labor through better resource and work planning

BUSINESS AREA CA	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	A. Budget Submission FY 1996/FY 1997 President"s Budget
	(\$ in Thousands)	
B. Component/Business Area/Date NAVY R&D/Depot Maintenance/ Jan-95	C. Line No. & Item Description Depot Maintenance Standard System (DMSS) ADPE Equipment	D. Activity Identification Joint Logistics Systems Center
Narrative Justification (Continuation): Reduced overhead through automation and the climination of non valu Shorter cycle times through better planning and management informat Improved schedule performance through more complete asset visibility Once implementation is complete and leave amplications are reduced on	Narrative Justification (Continuation):  Reduced overhead through automation and the climination of non value-added activity  Shorter cycle times through better planning and management information to control operations  Improved achedule performance through more complete asset visibility  Once implementation is complete and leavy amplications are reduced or eliminated. A DP code will come description.	
Without this investment, needed improvements to the depot/shipyare capabilities is a critical contribution toward improving mission read; workforce continue and the number of depots/shipyards are reduced, maintaining weapon systems combat readines. In order to meet this associated information infrastructure (hardware).	vements to the depot/shipyard business process and infrastruct ward improving mission readiness in a downsizing environmen depots/shipyards are reduced, efficient and effective organic reganes* In order to meet this demand, the depot/shipyard contantware).	Without this investment, needed improvements to the depot/shipyard business and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DoD weapon systems continue to age, reductions to the workforce continue and the number of depots/shipyards are reduced, efficient and effective organic repair capability is of increasingly growing importance to DoD in maintaining weapon systems combat readines. In order to meet this demand, the depot/shipyard community needs to dramatically strengthen its business processes and the associated information infrastructure (hardware).

CAPITA (I	L PURC	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	ate	C. Line. No 62/Misc ADP Items< 100K	ie. No ic ADP 100K	Line. No & Description /Misc ADP Equip Prod ems< 100K	ption	D. Act Naval W	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant Cost	Unit	Total Cost
ADP EQUIP							VAR		162	VAR		69

This investment purchases productivity related ADP items which improve the quality and efficiency of the work performed at the Naval Surface Warfare Center. Examples of these Productivity ADPE purchases include: NC/CAM Optical Jukebox, Classified Engineering File, Enhanced Engineering Tool, and a Presentation Graphic Syrtem.

CAPITA (I	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	ission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	nates	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	a te	C. Lir 63/Mis Missic	ie. No ic ADP in Item	C. Line. No & Description 63/Misc ADP Equip New Mission Items< 100K	tion	D. Act	D. Activity Identification Naval Warfare Centers	entific	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
ADP EQUIP							VAR		62	1		167

Examples of New Mission ADPE to be purchased are Advanced Computation System, Test Facilities Dual Computer System, and a Hydromechanics CAD II Workstation.

CAPITA ()	L PURC Dollare	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 64/LAN	e. No	Line. No & Description LAN Fiber Backbone	tion	D. Act NSWC - CITY	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific DIVISI	ation ON, PAN	чама
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
TELECOM EQUIP							1	200	200	Ι .	200	200
		•	•									

Narrative Justification: (Replacement)

Four year program to replace high traffic segments of the current copper-based local area network (LAN) with fiber optics. Includes cable and necessary equipment.

high density segments will provide an immediate 20-fold increase in throughput capacity to support the increasingly used high bandwith technologies that need significantly higher data rates. The existing 5 megabit local area network backbone will not support widespread use of multi-media, Berver based applications, or use of X-terminal technologies. Use of fiber optics technology on

transferring data and information, until the backbone saturates and throughput fails close to zero Without this project, demands to share or transfer ever-increasing amounts of information will Users will experience increasing delays in copper-based LAN backbone. in this contention-based network. saturate the existing

CAPITA	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	et Subn 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Eatimate	1 2 1 4		
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 65/NE	Line. No NETWORKS	Line. No & Description NETWORKS		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION	entific	ation	
										101 117	ON, DA	HLGREN
	FY 1994	44		FY 1995	95		FY 1996	9		FY 1997	7	
ET. EMENTING OF												
COST	Onant Coat	Cost	Total		Unit	Total		Unit	Total		Unit	Total
	Xuant	COBC	COBC	Vuant	nt Cost	Cost	Quant Cost	Cost	Cost	Quant Cost	Cost	Cost
TELECOM EQUIP										2.5.7.		
										VAK		369

Narrative Justification: (Replacement)

These Combat Systems, STANDARD Missile, TOMAHAWK, and Advanced Sea Mine. They allow the integration of The networks support Fleet needs of such programs as the Submarine Launched Ballistic Missile (SLBM), AEGIS networks primarily serve the scientific and engineering staff, providing access to scientific distributed ADP resources, both secure and unclassified. This investment is for the routers, multi-year effort to install a high speed media trunking system will be completed in FY93. bridgers, and control systems needed to implement the networks on the new trunking system, NSWCDD is in the process of expanding and enhancing its communications infrastructure. computing resources and permitting local area networking of research workstations.

Expanded and enhanced Benefits include better use of existing resources through interconnection, widespread access to economic analysis has been performed for this investment yielding a Savings to Investment Ratio networks will allow scientists and engineers to work more effectively due to data sharing capability and to save time and money due to higher speed, more reliable communications. tools and computer resources, and effective access to external activities.

CAPITA	L PURC	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 66/DIN	ie. No ET Ext	Line. No & Description DINET Extensions	tion	D. Activ NSWC - CA CARDEROCK	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK	entific K DIVIS	ation ION,	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total
TELECOM EQUIP							T	100	100	T	009	600

The David taylor Network (DTNET) is an integrated data/audio/video Division-wide network serving the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NSWC).

The funding is used to install cabling and terminal drops in new and existing buildings where there Service must be Beginning in Fiscal Year 1997, the core of DINET will also be converted to fiber is no service. The addition of the Naval Ship Systems Engineering Station (NAVSSES), Philadelphia, Pennsylvania, and activities at Fort Lauderdale, Florida, and White Oak, Maryland to CARDEROCDIV provided where it does not currently exist. Furthermore, the current net uses copper wire lines. This technology is too limited to meet future needs. All new extensions of DINET will use fiber Funding is required annually to extend DTNET to areas of the Division which do not have service. has altered the requirements for DTNET service from what was initially envisioned. optic technology.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission / Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
<ul><li>B. Component/Business Area/Date</li><li>DON/R&amp;D</li></ul>	ısiness	Area/D	a te	C. Lin 67/LAN Databa	C. Line. No & D 67/LAN Open Sys Database Server	ee te	otion	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific	ation ON, PA	NAMA
	FY 1994	4		FY 1995	35		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit nt Cost	Total Cost	Unit Ouant Cost	Unit	Total	Unit	Unit	Total
TELECOM EQUIP							П	250	250		1800	2081

Open systems (i.e., POSIX or UNIX) database server providing high-performance database creation, update, and search and retrieval hardware resources for relational, binary large object, and object-oriented database management systems.

standards-based computing and most applications are moving toward distributed database concepts. This server will provide the database "backend" for the executive support system. manipulation of corporate data supporting executive information and decision-making on local This acquisition is based on projected changes in DOD, DON, and especially NAVSEA system By FY96, COASTSYSTA expects to support new data warehousing applications allowing local NAVSEA's Information Resources Strategic Plan mandates transition to architectures. processors.

to conduct data warehousing and executive support on-site requiring remote processing at Dahlgren. This would generate requirements for wide-area networking in addition to the basic system If this request and its associated software procurement are not funded, COASTSYSTA will be unable requirements. These additional costs can be avoided by this procurement.

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Buc	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 68/LAN	ne. No I Plant	Line. No & Description 'LAN Plant Expansion	iption ion	D. Act NSWC - CITY	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific DIVISI	ation ON, PA	NAMA
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost
TELECOM EQUIP							1	50	20	-	55	55
Narrative Instittant	f-1 00 t-1	l	(New Miggina)	( "0								

(New Mission) Narrative Justification: Provide local area network (LAN) service to personnel located in new construction or rennovated Includes buried cable (fiber and copper) between buildings, ethernet wiring within buildings, bridges, and transcelvers. buildings and buildings with no current LAN service.

buildings in FY95, one rennovated building in FY96, and one building currently with no service in Services will be added to two new Personnel increasingly require access to LAN-based applications such as electronic mail, shared Office and laboratory buildings databases, access to host computers, and electronic exchange. without LAN services are no longer considered to be adequate.

Without LAN services, planned occupancy of these buildings will be thwarted as personnel located in them will have no capability to use electronic data interchange.

communication interface, data processor, network interface and applications, disk storage, and connecting hardware. Satellite dish/interface,

This product will provide an electronic link At present, logistics products such as technical manual updates, training data, and weapon system data base updates are sent to ships at sea via mail in paper form which is time consuming and are to the fleet anywhere in the world. It will allow technical data and drawing to be sent to the costly. The products on board ships are in jeopardy of being out of date and when changes do arrive, there is the chance they will not be updated. This product will provide an electronic ship at any time and continual updating of the weapon system data base. This project spans multiple years.

The logistics products on board ships will continue to be out of date and inaccurate causing increase cost in maintenance repair and contractor support to maintain the systems.

CAPITA (1	L PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	ret Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	siness	Area/Da	ate	C. Lin 70/Mis Rep It	Line. No & Do Misc Telecom Items< 100K	9 E	tion	D. Act Naval W	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
TELECOM EQUIP	-									VAR		50

# Narrative Justification: (Replacement)

This investment replaces aged Telecommunication equipment that is beyond economical repair and will also reduce downtime and maintenance. Examples of Replacemnt Telecommunications are Phone Switch Upgrade and Engineering Network.

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				Total	Cost		
	ation		7	Unit	COBC		
	ntific nters		FY 1997	4	Vualit		
Budget Submission FY1996/1997 Biennial Budget Eatlant	D. Activity Identification Naval Warfare Centers			Total		65	
Budget Submission FY1996/1997 Rienn	D. Act		٥	Unit	2000		
et Subr 96/1997	tion pment	7	FI 1990	Unit	2	VAR	
A. Budg FY19	C. Line. No & Description 71/Misc Telecomm Equipment New Mission Items 100K			Total			
	G Tele	Ľ		Unit			
NOI	C. Lin 71/Mis New Mi	FV 1005		Quant			
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				Total Cost			
AL PURCHASES JUSTIFIC (Dollars in Thousands)	Area/Da	4		Unit			
L PURC Dollare	ısiness	FY 1994		Unit Quant Cost			
CAPITA (1	B. Component/Business Area/Date DON/R&D			ELEMENTS OF COST		TELECOM EQUIP	

An example of New Mission Telecommunication Equipment is a LAN Fiber Test Equipment.

ICATION A. Budget Submission 18) FY1996/1997 Biennial Budget Estimates	C. Line. No & Description D. Activity Identification 72/CORPORATE DATABASE NSWC - DAHLGREN DIVISION, DAHLGREN UPGRADE	FY 1995 FY 1996 FY 1997	Quant Cost Cost Quant Cost Cost	324 VAR
bmissi 97 Bie	D. NSW	96	Unit	a a
get Su 996/19	ption	FY 19	Quant	VA
	& Descri DATABAS		Total Cost	
	e. No Porate	5	Unit Cost	
TION	C. Lin 72/COR UPGRAD		Quant	
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ate		Total Cost	
AL PURCHASES JUSTIFIC (Dollars in Thousands)	Area/Da		Unit	
AL PURC Dollar	aineae	FY 1994	Unit Quant Cost	
CAPIT!	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	OFF THE SHELF SOFTWARE

database software in FY95 and FY96, and data retrieval software in FY97. The software will be used scientists, engineers, program and line managers. This database is constructed with an open system eystems which are compliant with FIPS 127. This procurement consists of backup software in FY95, in combination with workstations, a server, and data archiving hardware to be acquired for this architecture which is compliant with FIPS 151 and supported by relational database management Center-wide database providing program management and project information is available to

reduce reliance on hardcopy reports and replace them with electronic query; and (d) reduce printing maintain separate, duplicative automated systems for maintaining and tracking program, project and management information; (b) improve productivity of technical personnel by requiring less time for improve productivity in the following ways: (a) eliminate the need for each technical program to This acquisition will compiling, analyzing and reporting information, thus allowing more time for technical work; (c) distribution costs by allowing distributed printing "on-location" for the reports that are The Corporate database is necessary to host a repository of information. necessary

manual data sources; separate automated systems to collect and manipulate data will continue to be Without the Corporate Database, productivity gains relative to managing and reporting information in the technical programs cannot be achieved. Each program will continue to rely on a variety of build and maintained, thus increasing costs and reducing the time available for performing technical tasks.

CAPITA	IL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	e te	
В. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line 73/FRON UPGRADE	le. No NT-END	C. Line. No & Description 73/FRONT-END SYSTEMS UPGRADE	tion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific	ation ON, DA	HLGREN
0	FY 1994	4		FY 1995	υ.		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Ouant	Unit	Total
OFF THE SHELF SOFTWARE							VAR		124	VAR		212

productivity. In addition to database software for the associated workstations, applications and This investment expands the existing Front-end System capacity and capabilities developed to implement and support reengineered business processes, cut cost and improve overall process forms software will be procured to decrease system development time and resources, increase developer productivity and boost overall system usability.

manual/semi-automated processes; (2) implement reengineered processes but limit number of users who and/or slower processes as the number of resources decline. Alternative (2) allows cost savings to be achieved but suboptimizes the amounts by restricting the number of reengineered processes to be Alternative (3) allows the cost reductions Current processes are labor intensive, slow, cumbersome, too costly to operate and add substantial can access and use the new processes; and (3) expand system capabilities to allow distribtuion of new processes across the organization. Alternative (1) locks in higher costs of doing business cost to NSWCDD customer products. Three alternatives exist: (1) continue reliance on and productivity benefits to be mazimized across the organization. deployed and the number of people who can access them.

This investment will reduce operational cost and achieve large scale productivity gains in a time manhour rates charged for technical work and (2) more direct labor charged for program management of declining resources and sponsor funds. NSWCDD sponsors will be impacted through (1) higher support activities.

CAPITA ()	L PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Line. No 74/Administ (Groupware)	ne. No ninistr ware)	Line. No & Description 'Administrative Comm coupware)		D. Act NSWC - CITY	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific DIVISI	ation ON, PAN	IAMA
	FY 1994	4		FY 1995	15		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
OFF THE SHELF SOFTWARE							F	50	50	T	50	50

calendars (e.g. for conference room reservations) with automatic mail notification to attendees, Installation of multi-user software for administrative and managerial users such as shared electronic form and document routing, and electronic signature/authorization. As technology marches forward and electronic communication tools improve, it is important that this activity maintain pace. This software will enable administrative personnel and managers to do more Information via the local area network and greatly reduce both paper and "walk-thru" of documents. interchange will be expedited.

If expenditures of this type are not made, this activity will not take advantage of developing administrative communications technology and the increased productivity that they provide will

CAPITA ()	M PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienn	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 75/LAN Databa	C. Line. No & Deso 75/LAN Open Syster Database Software	Line. No & Description LAN Open Systems abase Software	tion	D. Act NSWC - CITY	D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY	entific	ation ON, PA	VAMA
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total
OFF THE SHELF SOFTWARE										rd	200	200

Open systems (i.e., POSIX or UNIX) standards-compliant database management system providing high-performance database creation, upgrade, and search and retrieval resources for relational, binary large object, and object-oriented data bases.

standards-based computing and most applications are moving toward distributed database concepts. This software will provide the database "backend" for the executive support system. manipulation of corporate data supporting executive information and decision-making on local This acquisition is based on projected changes in DOD, DON, and especially NAVSEA system By FY96, COASTSYSTA expects to support new data warehousing applications allowing local architectures. NAVSEA's Information Resources Strategic Plan mandates transition to processors.

to conduct data warehousing and executive support on-site requiring remote processing at Dahlgren. If this request and its associated hardware procurement are not funded, COASTSYSTA will be unable This would generate requirements for wide-area networking in addition to the basic system These additional costs can be avoided by this procurement. requirements.

B. Component/Business Area/Date  C. Line. No & Description  NSWC - ALL  NSWC -	CAPITA ()	ML PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	a tea	
FY 1994  FY 1995  FY 1996  Outle Total Unit Total Cost Cost Cost Cost Cost Cost Cost Cost	B. Component/Bu DON/R&D	ısiness	Area/Da	ate	C. Lir 76/NIM	ie. No	& Descrig		D. Act	ivity Ide	entific	ation	
Operation     Unit     Total     Unit     Total       Quant     Cost     Cost     Cost     Cost       1,754     1,754		FY 199	4			15		FY 199	9		FY 1997	1	
1 1,754	ELEMENTS OF COST	Quant	Unit	Total Cost	Quant		Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total
	SOFTWARE DEVELOPMENT							r	1,754	1,754	T	726	726

requirements based upon flexible technology platforms, (2) sharing of application software and data This program is redundant application maintenance functions, (4) potential for common functional processes, and (5) it was approved by NISMC as the MNS for the NIMIP. NSWC has performed a program economic analysis The software migration part of the NAVSEA Business Case which analyzed solutions for improving the IRM Business Function; as part of their business case. The impact of not making the investment is to: (1) remain in the Several of the applications have been patched to will be based upon downsizing hardware platforms, distributed data and applications. Investment The current software computing capability is based upon proprietary database environments with across platforms and therefore activity groups, (3) reusable application software reducing benefits to be realized include: (1) ability to address constant change and unpredictable user friendly access to data providing information in the format and time desired. proprietary database environment and (2) not be able to achieve budgeted savings. the point of needing a new architecture design based on information needs. associated high application maintenance costs.

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 77/250 BLDG	ne. No	ine. No & Description 500 KVA SUBSTATION "F"		D. Act	D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE	entific VISION,	ation	VILLE
·	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total
MINOR CONSTRUCTION												300

Narrative Justification: (Replacement)

This project will install a 2,500 KVA, 480v outdoor electrical substation and distribution panels for "F" Building which houses a Machining Area, Computer Room Facility and the N/C Programers.

expansion capability and reduce maintenance and new equipment purchase cost by having the correct This project will provide There is no capacity to expand and machining equipment must be ordered "special" to accomodate the existing 208v. The current system is overtaxed and outdated. power source.

If not provided, downtime will continue because of an overtaxed system, equipment life will be shorter, and production costs will be higher due to equipment purchase cost and downtime.

CAPIT.	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	let Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	a tea	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 78/25( A	ie. No 00 KVA	C. Line. No & Description 78/2500 KVA SUBSTATION IN A	otion N IN	D. Act NSWC -	D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE	entific /ISION,	ation	VILLE
	FY 1994	. 4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total	t at a	Unit	Total
MINOR CONSTRUCTION							t		250		200	3800

This project provides for installation of a 2,500 KVA, 480v outdoor electrical substation and distribution panel in the Gun Mount Production Shop area to support production in A-30-South.

overhaul of various gun mounts. Equipment in the area is currently fed from an existing overtaxed 208v electrical system and a single 480v distribution panel located in A-30-South. The new system will provide adequate power to feed existing and new production equipment from the new electrical The south end of "A" Building contains all the hydraulic testing equipment which supports the distribution panels already in the immediate area.

000335

Building hydraulic area. The existing system is 208v which requires larger wiring components to The existing system is currently near capacity and limits the potential for expansion in the "A" Special ordering of production equipment is also required to accomodate the outdated 208v system. provide the same amount of power.

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	ilssion Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 79/B15	e. No	ine. No & Description 152 RENOVATIONS		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	5		FY 1996	2		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost		Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
MINOR CONSTRUCTION									200	×		
2 4 - 1 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5												

facility built in B152 is a 21,000 square foot research, development, test and evaluation (RDT&E) 1944. This investment will renovate the facility to better utilize space. This investment will renovate the facility to better utilize space. Renovation of B152 will increase the energy efficiency of an old, costly building as well as modify configuration in order to maximize utilization. Users of smaller, more costly buildings will be relocated to B152, thus allowing the demolition of these buildings and decreasing utility and maintenance costs.

addition, NSWCDD will be unable to relocate users of the smaller, more costly buildings, resulting If this project is not completed, the building will not be utilized to its full capacity. in higher energy and maintenance costs.

CAPIT!	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 80/CON	e. No	Line. No & Description CONSOLIDATED STORAGE	tion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
-	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Ouant	Unit	Total
MINOR CONSTRUCTION												300

This investment will provide a large, consolidated, HVAC-controlled facility for the storage of various items of equipment.

These This building will replace several small, obsolete facilities currently used for storage. cost-intensive small facilities will then be demolished and reduce overall operating costs. Without this investment, the small, cost-intensive facilities will continue to be used and utility savings will not be realized.

CAPITA )	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	ret Subr 196/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	la tea tea	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	a te	C. Lin 81/MIS LABORA	e. No SILE D	C. Line. No & Description 81/MISSILE DATA SYSTEM LABORATORY BUILDING	otion sM	D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME	entific NEME DI	ation	, PORT
	FY 1994	14		FY 1995	55		FY 1996	9		FV 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Unit Cost	Unit	Total		Unit	Total
MINOR CONSTRUCTION									30		1 COB C	300
	-	1										

system development laboratory is required to house the TEDES equipment, the VLS envoronmental/blast Tomahawk External Data Extraction System (TEDES) \Vertical Launching Systems (VLS) /HARPOON data test equipments, and the Harpoon recording equipments.

The existing facility is not constructed to environmental standards required for its current utilitization as lab and office area. The facility housed sensistive computer equipment to include This hut is scheduled for demolition in year tape units, disk drives, and digital analog tapes. This Butler Hut is also used to curcuit board testing and for the build-up and testing of the various data recording systems prior their being shipped to the fleet or test sites. fabrication software development, data reduction and analysis, engineering development model The existing facility is a 1945 vintage "Butler Hut".

If this facility is not replaced the work will be redirected by NAVSEA/NAVAIR to another field activity. Funding for these three programs for a typical year is in the order of \$850K. we lose the tasking for these instrucmentation systems.

CAPITA	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Bude FY1	Budget Submission FY1996/1997 Bienn	nission / Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 82/POF SYSTEN	Line. No PORTABLE TEM LAB	Line. No & Description PORTABLE ACQUISITION TEM LAB		D. Act NSWC - HUENEME	D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME	entific NEME DI	ation	, PORT
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost
MINOR CONSTRUCTION									30		,	300

PDACS equipment, the PDACS software development equipments, the system spares, and the office area The Portable Data Acquisition and Collection System (PDACS) laboratory is required to house the for PDACS instrumentation team.

The existing facility is a 1945 vintage "butler hut". This hut is scheduled for demolition this The existing facility is not constructed to environmental standards required for its:/future utilization. The facility houses sensitive computer equipment to include tape This Butler Hut is also used for circuit board fabrication, software development, data reduction and analysis, engineering development model testing. This lab is also used for the equipment buildup and testing of the PDACS recording systems prior to its being shipped to the fleet. units, disk drives, and digital analog tapes. current/future utilization.

redirected by NAVSEA to another field activity. In summary, we lose the tasking for the PDACS data Funding from the six projects (BFTT, LATR, MSR, SSDS, TCTS, AND ERESS) using the PDACS systems for a typical FY is in the order of \$680K. If this facility is not replaced the work will be

CAPITA	NE PURC	HASES OF	CAPITAL PURCHASES JUSTIFICATION	FION		A. Budg	et Subn	Budget Submission				
	חסדדמד	Correct III IIIOngailag	usamus)			FILE	96/199	/ Bienni	FIL996/1997 Biennial Budget Estimates	t Estin	nates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 83/B12	e. No	ine. No & Description 1200 RENOVATIONS		D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total	Quant	Unit	Total	Unit Ouant Cost	Unit	Total	Unit Coat	Unit	Total
MINOR CONSTRUCTION							t			t i		300
Narrative Justification (Dood.attain)	£4.00+4	One (Br	odnat tuet									

This Building 1200 is a 124,000 gross square foot Computation and Analysis building built in 1964. project will alter existing spaces within the facility and upgrade existing HVAC and piping systems.

These alterations, in conjunction with significant maintenance and repair, will provide a more efficient workspace for a large number of people. By improving the existing large facilities, NSWCDD will be able to consolidate location of people and work; consequently, smaller, less efficient facilities will be demolished. Without this investment, small, cost-intensive facilities must be used and efficiency savings will not be realized.

CAPITA ()	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	ission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	: Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 84/EXT DISTRI	C. Line. No & D 84/EXTEND STEAM DISTRIBUTION	Line. No & Description EXTEND STEAM TRIBUTION		D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	2		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Tota1 Cost	Unit Quant Cost		Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									215	·		

In order to fully utilize the system, the system will be extended to provide The existing steam generation system at NSWCDD (Dahlgren) has the potential to provide additional service to various buildings ruch as B183, B411, and B180. steam to facilities.

NSWCDD has additional steam heating capability, it will be relatively inexpensive to extend the steam distribution system to additional buildings and to thus decrease overall heating costs. Steam heat is more cost effective than the current heating methods in those buildings.

Without this investment, less cost-effective heating methods will continue to be used. Consequently, utility efficiency savings will not be realized.

CAPITA ()	NL PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	LION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	######################################	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 85/REN	C. Line. No & Der 85/RENOVATE B218		tion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION DAHLGREN	entific	cation	ur.goew
	FY 1994	4		FY 1995	15		FY 1996	9		FV 1007	27	TIDGER
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total	Unit Ouant Cost		Total	Onant Cost	Unit	Total		Unit	Total
							××	2000	2000	Yuant Cost	COBC	COST
MINOR CONSTRUCTION									300			

Building 218 is a 44,000 gross square foot Research Development Test & Evaluation (RDT&E) facility built in 1942. This project will alter existing spaces within the facility and upgrade existing HVAC and piping systems.

These alterations, in conjunction with significant maintenance and repair, will provide a more By improving the existing large facilities, NSWCDD will be able to consolidate location of people and work; consequently, smaller, less efficient workspace for a large number of people. efficient facilities will be demolished. Without this investment, small, cost-intensive facilities must still be used and efficiency savings will not be realized.

CAPITA (1	L PURC Dollare	'AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	Budget Submission FY1996/1997 Bienn	nission 'Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	E TAT	† 0	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lir 86/TTS	Line. No & Der	1 120	tion	D. Act	D. Activity Identification NSWC - DAHLGREN DIVISION DAHLGREN	intific DIVISI	ation	wa ao In
	FY 1994	せ		FY 1995	)5		FY 1996	9		FV 1997	1 1	HOREN
TO CHINESTER IN												
COST COST	Quant Cost	Unit	Total	Quant	Unit	Total Cost	Unit Ouant Cost		Total	Unit	Unit	Total
MINOR							t		000	X	2000	COBC
CONSTRUCTION									N N	ı		

The Target Tracking and Signal Processing (TTSP) Facility is a generic building housing equipment used to develop and test techniques for multi-sensor data fusion, single and/or multi-sensor state estimation, signal processing associated with single and/or multi-sensor, optimal resource scheduling, and multiple simultaneous beamforming phased arrays.

This additional space is required to house planned CPP equipment (both ADP and Non-ADP). This building will also provide adequate space to conduct briefings and to host working level meetings related to laboratory operations or technology development in proximity to the development activities.

Without this investment, there will be inadequate space to efficiently support TTSP efforts.

		<b>-</b>	T				200	
		HIGRE			Total	Cost	2	
	atter	ON, DA		/	Unit	Cost		
	ntific	DIVISI	7 4.5	FI 1997		Quant Cost		
, d	cription D. Activity Identification	NSWC - DAHLGREN DIVISION, DAHLGREN			Total	COST		
Budget Submission FY1996/1997 Bienn	D. Ac	NSMC -	y	,	Unit	COBC		
et Subr	3		FV 1996		1	Yuanic Cost		
A. Budg	ine. No & Description	87/UTILITY METERING			Total	2802		
	e. No	LITY M	ζ.		Unit	3		
rion	C. Lin	87/UTI	FY 1995		Ouant			
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ate				Total Cost			
HASES J	Area/D		4		Unit			
ML PURC Dollare	ısiness		FY 1994		Quant Cost			
CAPIT?	B. Component/Business Area/Date	The first			ELEMENTS OF COST	S. C. C. C. C. C. C. C. C. C. C. C. C. C.	CONSTRUCTION	

This project will install electric meters on various buildings at NSWCDD.

This is Utility meters are required in order to accurately charge users for utility charges. essential for the implementation of Base Operating Support (BOS). If this project is not completed, NSWCDD will continue to estimate utility costs for the facilities and be unable to implement the BOS requirement of obtaining reimbursement for actual utility usage.

700)	PURCH 11are	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	NOI		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	: Estim	ates	
B. Component/Business Area/Date DON/R&D	ness	Area/Da	te	C. Lin 88/CON B.521	e. No STRUCT	Line. No & Description CONSTRUCT ADDITION TO	ď	D. Act NSWC - HEAD	D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD	antific	ation ISION,	INDIAN
FY	FY 1994			FY 1995	5		FY 1996	Q.		FY 1997		
ELEMENTS OF Qu	Quant Cost		Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost		Total
MINOR CONSTRUCTION									250	·		

(New Mission) Narrative Justification:

The addition must blend in with the existing facility Build 2300 sq ft addition above main floor. in terms of appearance and practicality. Expanding the facility will reduce cost by relocating personnel from leased spaces to facilities on the Activity.

Centralization of The Activity will continue to pay for leased spaces which could be avoided. personnel will create efficiencies. 000405

CAPIT!	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	c Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 89/FIA	L MODI	Line. No & Description FIAL MODIFICATIONS	tion	D. Activ NSWC - CA: BREMERTON	D. Activity Identification NSWC - CARDEROCK DIVISION, BREMERTON	entific C DIVIS	ation ION,	
	FY 1994	4	,	FY 1995	Š		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Unit Ouant Cost	Unit	Total
MINOR CONSTRUCTION									285			

This project will convert laboratory space to offices; erect modular structures to house equipment; order to support increased occupancy at the Fox Island Acoustic Laboratory (FIAL) at the Bremerton Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN). conditioning (HVAC) systems; and enlarge the capacities of the potable water and septic systems in upgrade electrical, security, and telephone systems; resize heating, ventilation, and air

This will require the relocation of the Bremerton Detachment. In order to better utilize Division CARDEROCKDIV has been repeatedly asked by the Puget Sound Naval Shipyard to vacate tenant spaces. assets and reduce the need for commercial lease space, some personnel will be relocated to the Acoustic Research Detachment (ARD), Bayview, Idaho and the remainder to FIAL.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITA ()	L PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Bude FY1	get Subi 96/199	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Line. N 90/FUEL CE LABORATORY	C. Line. No & De 90/FUEL CELL R&D LABORATORY	02	ption	D. Activ NSWC - CA. ANNAPOLIS	D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS	entific C DIVIS	ation ION,	
	FY 1994			FY 1995	5		FY 1996	9		FY 1997		
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total
MINOR CONSTRUCTION									226			

proof electrical system, fume hoods in the assembly and analysis area, and adjacent concrete pads, This project will erect a 40 foot by 40 foot metal frame building with high bay doors, explosion to support Fuel Cell Research and Development Programs at the Annapolis Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

The new laboratory building will provide the space needed to support the demonstration of shipboard fuel cell systems Because fuel cell power systems offer enhanced ship survivability, reduced fuel consumption, and The Annapolis Detachment is the only Navy laboratory currently involved in this work. near zero pollution, the Navy has increased research and development (R&D) programs for these The growth in fuel cell programs has made existing laboratory space inadequate. at sea and the development of advanced and high power density fuel cells. systems.

Failure to fund this project will result in the inability to meet customer requirements.

CAPIT <sup>3</sup>	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	FION		A. Budg FY19	et Subn 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	at each	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Line. 91/RIMS BUILDING	ine. No & Descritors oberations	Line. No & Description RIMS OPERATIONS LDING	tion	D. Activ NSWC - CA CARDEROCK	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK	entific K DIVIS	ation ION,	
·	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Unit Cost	Unit	Total	1	Unit	Total
MINOR CONSTRUCTION				1			i i		300	Analis	COBC	Cost
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This project will construct a module adjacent to Building 18 at the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN) to provide a protected, environmentally controlled work and storage area to support the Radar Image Modelling System (RIMS) and the Deployable Signature Measurement System (DSMS).

humidity controlled environment in which these systems can be housed, maintained and prepared for The RIMS and DSMS , multi-million dollar investments by the Navy in state-of-the-art electronics temperature and systems are housed in trailers which expose them to the deteriorating effects of extremes of and instrumentation, are the heart of Navy radar signature reduction efforts. At present, temperature and humidity. The RIMS Operations Building will provide a dedicated test operations.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITA (	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Bud FY1	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 92/ABR	ASIVE	Line. No & Description ABRASIVE BLAST FACILITY	ption	D. Activ NSWC - CA CARDEROCK	D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK	entific & DIVIS	ation ION,	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
MINOR CONSTRUCTION									290	·		

This project will construct a new Abrasive Blast Facility to replace the existing facility which is old and environmentally unsafe.

In addition to the environmental concerns, the current facility is inadequate in (CARDEROCKDIV, NAVSURFWARCEN) is located adjacent to a wetlands area and presents the danger of The current Abrasive Blast Facility at the Carderock Division, Naval Surface Warfare Center size and worn out. contamination.

CAPIT?	ML PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg	et Subi 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimaton	17. 17. 14. 14.	4	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 93/AIR BOILER	le. No EMISS	Line. No & Description AIR EMISSIONS, THREE LERS - PHILADELPHIA	tion	D. Activity NSWC - CARDE	D. Activity Identification NSWC - CARDEROCK DIVISION, PHILADELPHIA	entific K DIVIS	ation ION,	
	FY 1994	4		FY 1995	)5		FY 1996	9		FV 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total	O	Unit	Total		Unit	Total		Unit	Total
MINOR	l l			ž	22	300	Adaile Cobi	2802	COBC	Quant	Cost	Cost
CONSTRUCTION												3

This project will install emissions control systems on the existing boiler stacks at the Philadelphia Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

Philadelphia is in a non-attainment area for this pollutant and will be subject to limits on emissions. attain compliance, a combination of burner control technology and/or stack precipitators or The Clean Air Act (Federal Regulation 55620 paragraph 57) regulates ozone emissions. scrubbers will be required.

CAPITA (I	L PURC	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	siness	Area/D	a te	C. Lin 94/CON SEWAGE	STRUCT	C. Line. No & Description 94/CONSTRUCT WETLANDS AT SEWAGE TREATMENT PLANT	ption s AT	D. Act NSWC - HEAD	D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD	entific EAD DIV	ation ISION,	INDIAN
	FY 1994	4		FY 1995	ភ		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit Int Cost	Total Cost	Quant	Unit	Total Cost	Unit Quant Cost	Unit Cost	Total Cost
MINOR CONSTRUCTION							:			:		300

Replace wetlands destroyed by military construction projects.

This project is necessary to fulfill an agreement we have with the State of Maryland to construct wetlands which were destroyed during a military construction project at another site of Activity.

Without approval of this project, the Activity will not comply with an agreement made with the State of Maryland.

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CAPITA (1	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	la tes	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 95/FIR	ine. No & Desc IRE PROTECTION	ine. No & Description IRE PROTECTION		D. Act	D. Activity Identification NSWC - CARDEROCK DIVISION, MEMPHIS	entific C DIVIS	ation ION, M	SMPHIS
	FY 1994	4		FY 1995	Š		FY 1996	မ		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total	Unit Quant Cost	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Unit Cost	Unit	Total
MINOR CONSTRUCTION									250	i i	200	7807
Warmen to the first of the firs		1										

This project will install emergency lighting in Building 1, and a fire sprinkler system in Building 4 at the Memphis Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN). The National Fire Code for Safety to Life from Fire in Buildings and Structures (NFPA 101) mandates emergency lighting in industrial and office buildings and sprinkler protection in office buildings. This project will install these systems where they do not exist at the Memphis Detachment.

CAPIT;	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	usiness	Area/Da	ate	C. Lin 96/INT SYSTEM	e. No EGRATE	Line. No & Description INTEGRATED SITE ALARM ITEM		D. Act NSWC -	D. Activity Identification NSWC - CARDEROCK DIVISION, MEMPHIS	entific K DIVIS	ation ION, M	EMPHIS
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
MINOR CONSTRUCTION									277			

operational alarms as well as perform energy monitoring at the Memphis Detachment, Carderock This project will install an integrated alarm system which will provide fire, security and Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN). The National Fire Code (NFPA 101) mandates fire alarm systems for industrial and office buildings. requirement, and low staffing level of the Memphis Detachment makes the installation of an energy security alarm system to maximize security and accomodate classified and sensitive projects, and The large size, periodic high energy Additionally, the Large Cavitation Channel (LCC) located at the Memphis Detachment requires a Presently, the Memphis Detachment of CARDEROCKDIV does not have a site fire alarm system. operational alarms to ensure safe and efficient operation. monitoring system a necessity.

CAPITA (I B. Component/Bu DON/R&D CONT MINOR CONSTRUCTION	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands) FY1996/1997 Biennial Budget Estimates	B. Component/Business Area/Date C. Line. No & Description D. Activity Identification PACY R&D NSWC - CARDEROCK DIVISION BANNESS	FY 1994 FY 1995 FY 1996 FY 1997	Unit Total Unit Total Unit Total Unit Cost Cost Cost Cost Cost	
	L PURC	siness	FY 195	Quant	

material/personnel access pler from the lake shore to the Large Model Support Barge (LSMB) at the Acoustic Research Center (ARD), Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, This project will construct a 12-foot wide, 100-foot long, driven piling supported, NAVSURFWARCEN). The LSMB and Model Support Platform (MSP) are moored approximately 100 feet off shore in Lake Pend The new pier will provide safe and ready access from the shore research programs involving large scale submarine models. At present, access to these facilities Orielle at ARD, Bayview, Idaho. These facilities support a growing number of acoustic silencing is by an unsupported personnel access gangway. This gangway is too narrow and unsteady for the transfers must now be accomplished using small watercraft with the attendant risk of loss of Such material transfer of large, heavy, or bulky material from the shore to the facilities. to the facilities for both personnel and material. material and/or personnel injury.

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	ate	C. Lin 98/OFF MISSII	Line. No & OFFICES FOR	Dea EN	otion	D. Act NSWC -	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific /ISION,	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total
MINOR CONSTRUCTION	-								260			

The building will This project constructs a 5,000 sq.ft., stand-alone building near Building 364. The building where two small offices and the remainder will be open office area. Restrooms and a coffee mess will also be provided. Building 3115, which is the current location of the engineering support personnel, is encumbered by explosive arcs from the red-phosphorus building, Building 198, and a ready magazine.

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CAPITAL PURCHASES JUST (Dollars in Thousa B. Component/Business Area/Date	AL PURC Dollar	AL PURCHASES JUSTIFIC (Dollars in Thousands) usiness Area/Date	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION C. Lit	Je. No	ION A. Budget Su FY1996/19 C. Line. No & Description	Budget Submission FY1996/1997 Bienn cription D. Ac	mission 7 Bienni D. Act	Budget Submission FY1996/1997 Biennial Budget Estimates cription D. Activity Identification	t Estin	ates	
	700			59/RER ENGR	GOM ON	ENGR		NSWC -	NSWC - CRANE DIVISION, CRANE	VISION,	CRANE	
	21 133			FY 1995	95		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit	Total	Onant Cost	Unit	Total		Unit	Total
MINOR	-				<del></del>				200	Quant	12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	Cost

This project renovates two existing modular rooms and the Code 8023 Production Engineering room.

CAPITA ()	L PURC	HASES J	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rion		A. Budg FY19	Budget Submission FY1996/1997 Bienn	nission 7 Bienn	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 100/RE	e. No PLACE	C. Line. No & Description 100/REPLACE BUILDING 2903	ption 2903	D. Act	D. Activity Identification NSWC - CRANE DIVISION, CRANE	entific VISION,	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost	Quant	Unit	Total Cost
MINOR CONSTRUCTION												275

a lunch and locker area for the truck drivers who haul for the Crane Army This project provides for Ammunition Activity.

Due to a change the existing building is now encumbered and has been documented as a The present lunch and locker building is in an area encumbered by explosive arcs. in the requirements of OP-5, the existing building is now encumbered and has been safety violation.

Should an accident occur with the documented safety deficiency, the Navy could incur large liability.

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The site currently This project will improve vehicluar and pedestrian circulation op Marple Road. has on-road parking and is a major thoroughfare for the Dahlgren site. This area is a safety concern due to the volume of traffic as well as insufficient space for needed Redesign of this The road is also a pedestrian crosswalk between two major buildings. parking. The road is also a pedearea will reduce safety hazards.

Without this investment, pedestrian and vehicular safety hazards will continue to be a concern.

CAPIT.	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	let Subr 96/1997	nission / Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	ates	
B. Component/Business Area/Date DON/R&D	usiness	Area/D		C. Lin 102/ST	ORMWAT	C. Line. No & Description 102/STORMWATER SYSTEM	ton	D. Act NSWC -	D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN	entific DIVISI	ation ON, DA	HLGREN
	FY 1994	4		FY 1995	S.		FY 1996	9		FY 1997	,	
ELEMENTS OF COST	Unit Quant Cost	Unit	Total Cost	Quant	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR									100			100

The investment will install additional stormwater distribution lines in areas that do not currently have them.

This investment is necessary in order to reduce/control the amount of direct stormwater runoff from NSWCDD.

If this project is not completed, NSWCDD will be unable to control stormwater runoff.

CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	et Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estin	1. 1.	
B. Component/Business Area/Date DON/R&D	ısiness	Area/Da	a t e	C. Lir 103/UE X-RAY	C. Line. No & 103/UPGRADE BUX-RAY FACILITY	Des	tion 731	D. Act NSWC - HEAD	D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN	entific EAD DIV	ation ISION,	INDIAN
	FY 1994	4		FY 1995	95		FY 1996	9		TV 1007	-	
ELEMENTS OF	1	Unit	Total		Unit	Total		Unit	Total		Unit	Total
1600	Vuant Cost	COBC	Cost	Quant	Cost	Cost	Quant Cost	Cost	Cost	Quant	Cost	Cost
MINOR												300
										:		

Bldg.731 Upgrade

The lead shields will improve safety allowing the X-ray technicians to work in one of the three bays simultaneously while other technicians are setting up the next motor. This will increase efficiency and possibly reduce the overtime needed to keep up with the amount of X-ray being performed.

Without the upgrade, the Activity will not make efficient use of our x-ray facilities.

B. Component/Business Area/Date   C. Line. No & Description DON/R&D   104/WEAPONS O/H AREA   NSWC - CRANE DIVISION, CRANE DON/R&D    ELEMENTS OF   Voit   Total   Cost   C	CAPITA (1	L PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Bud FY1	Budget Submission FY1996/1997 Bienn	mission 7 Bienn:	Budget Submission FY1996/1997 Biennial Budget Estimates	t Estim	lates	
FY 1994  FY 1995  Unit Total Quant Cost Cost Cost Cost Cost Cost Cost Cos	B. Component/Bu DON/R&D	ısiness	Area/Da	ate		le. No APONS	& Descri O/H AREA	ption	D. Act NSWC -	crane DI	entific VISION,	ation	
Quant Cost Cost Quant Cost Cost Quant Cost Quant		FY 199	4			ž.		FY 199	و		FY 199	7	
MINOR CONSTRUCTION	ELEMENTS OF COST	Quant	Unit	Total Cost	nt	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total
	MINOR CONSTRUCTION												300

This project provides a well-lighted, humidity-controlled work area for the small arms overhaul

These conditions Currently lighting is at 40 FC and this causes eye strain on the employees working on small parts. This project will light the area to approx. 100 FC. Additionally, the temperature in the area during the summer months averages 95 degrees and the humidity level averages 60%. have an adverse effect on the raw metal parts being corrosion protected. Less than optimum work performance and rework due to corrosion of raw metal parts will continue, as well as eye strain for the employees. as eye strain for the employees.

Г			11	275	
			Total	Cost	
ates	ation	7	Unit	COBC	
t Estim	entific	FY 1997		VAR	
Budget Submission FY1996/1997 Biennial Budget Estimates	D. Activity Identification Naval Warfare Centers		Total	345	
Budget Submission FY1996/1997 Bienn	D. Act	9	Unit		
let Subr 196/1997	tion	FY 1996	) train	VAR	
A. Budg FY19	C. Line. No & Description 105/Misc Minor Construction Rep Items		Total Cost		
	e. No a sc Min uction	5	Unit		
FION	C. Lin 105/Mi Constr	FY 1995	Quant		
IFICAT nds)					
HASES J	Area/D	4	Unit Cost		
M PURC Dollar	ısiness	FY 1994	Unit Quant Cost		
CAPITA ()	B. Component/Business Area/Date DON/R&D		ELEMENTS OF COST	MINOR CONSTRUCTION	

The projects identified fund the minor construction portion of projects which are a combination of Maintenance and Repair and miscellaneous Minor Construction. Examples of these projects are Explosive Test Research Facility, Upgrade Central Laundry, Clean-up Project, Lab Upgrade, and Construct Temperature & Humidity Building

CAPITA ()	AL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY15	Budget Submission FY1996/1997 Bienn	nission Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	: Estim	ates	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lir 106/Mi Constr	C. Line. No & 106/Misc Minor Construction P	C. Line. No & Description 106/Misc Minor Construction Prod Items	ption ems	D. Act Naval W	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit nt Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		370	VAR		360

The projects identified provide increased productivity infrastructure support to the Naval Surface Warfare Centers. Examples of these projects include: Air Test Facility Piping, Feed Back Upgrade, V-Building Cantilveve Racks, and Extend Steam Distribution.

CAPITA )	AL PURC	AL PURCHASES JUSTIFIC (Dollars in Thousands	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TION		A. Budg FY19	let Subm	ulssion Bienn	Budget Submission FY1996/1997 Biennial Budget Estimates	7. A. A. A. A. A. A. A. A. A. A. A. A. A.	1	
B. Component/Business Area/Date DON/R&D	usiness	Area/D	ate	C. Lin 107/Mi Constr Items	C. Line. No & 107/Misc Minor Construction N	D W	d	D. Act	D. Activity Identification Naval Warfare Centers	entific	ation	
	FY 1994	4		FY 1995	)5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Unit Ouant Cost	Unit	Total	Ouant	Unit	Total
MINOR CONSTRUCTION		·					VAR		09			

The projects identified provide increased infrastructure support to the Naval Surface Warfare Centers. Examples of these projects include: Fuel Cell R&D Laboratory, CD ROM Publishing Capacity, Sonar Motion Test Facility, Titanium Spray Forming, and Model Display & Prep Building.

CAPITA	NL PURC Dollare	AL PURCHASES JUSTIFIC (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollare in Thousands)	TION		A. Budg FY19	et Subr 96/1997	Budget Submission FY1996/1997 Bienni	Budget Submission FY1996/1997 Biennial Budget Estimates	: Estim	a te	
B. Component/Business Area/Date DON/R&D	ısiness	Area/D	ate	C. Lin 108/Mi Constr Items	Line. No & //Misc Minor istruction E	Dea nv/	no	D. Act Naval W	D. Activity Identification Naval Warfare Centers	entific enters	ation	
	FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	7	
ELEMENTS OF COST	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit Cost	Total Cost	Unit Quant Cost	Unit	Total Cost	Unit Quant Cost	Unit	Total Cost
MINOR CONSTRUCTION	-						VAR		910	VAR		1,005

These projects are required to meet regulatory requirements which are primarily environmental or safety related. Examples of these projects include: Explosive Sampling Building, Waste Oil Storage Facility, Gas Cylinder Storage & Ramp Level, Construct Refrigerant Recycling Facility, and Soil Bio-Engineering Phase II.

			<b>CAP 11A</b> l	L PURCI	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION inds)							A. F.	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmen	t.					C. P-369 MILCO REPLACEMENT	MILCON COL	LATER	C. P-369 MILCON COLLATERAL EQUIP.(MESA) REPLACEMENT	WESA)	O.	D. NAWC-WD	
	-										LINE # W	LINE # WC3EL0005R			
		FY 1993	23		FY 1994	4		FY 1995	5		FY 1996	\$		FY 1997	
			Total		Unit	Total		Unit	Total		Unit	Total		Unit	Total
Element of Cost	aty	Cost	Cost	οţ	Cost	Cost	atý	Cost	Cost	aty	Cost	Cost	aty	Cost	Cost
Hardware										-	75	75	-	75	X
Software										-	225	225	-	200	325
Installation												}		77	G
•												<i>,</i>			
		:				-					:				
TOTAL											300	300		200	200

Narrative Justification: OPERATIONAL DATE: January 1996

complete and usable. Construction of the facility has begun and limited operational capability is expected by May 1995. This equipment will measure the performance of advanced fuse and missile technologies while still in the design and prototype phases and assess the effectiveness of improvements in current weapon systems to counter the advanced threats. It will also provide an effective capability to assess the performance of foreign military systems DESCRIPTION: These procurements will provide the collateral equipment required to make the Missile Engagement Simulation Arena (MESA) (MILCON P-369) against U.S. reduced observable aircraft and missiles.

Cost reductions associated with the acquisition of the collateral equipment are significant but not the most important reasons for justifying acquisition. Appropriate outfitting of the MESA is essential to provide the critical and unique fuse testing capabilities that are required. method is estimated at 12 contract manyears. However, GFE of the technical facility would not be cost effective. MESA will support the development and improvement of the anti-air weapons critical to the defense of the Navy and other military services and their ability to project force. Without MESA, the United States would be severely handicapped in its ability to develop missile fuzes needed to counter advanced threats, such as the reduced observable airframe. Without MESA, the Naval Air Warfare Center, Weapons Division, the Navy's primary Center for the development of anti-air weapons, would be limited in its capabilities to develop the weapons needed to counter these threats.

ECONOMIC ANALYSIS IMPACT: Cost reductions associated with the acquisition of the collateral equipment are significant but not the most important reasons for justifying its acquisition. Appropriate outfitting of the MESA is essential to provide the critical and unique fuse testing capabilities that are

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 5.8 years Return on Investment (ROI) = 13% Average Annual Savings = \$1,109K

			- 1	il Purci	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)								A. FY 1996/1997 BIENNIAL BUDGET	_
B. Department of the Navy/Research & Development	sarch &	Developmen						C. WEPTAC PHASE I REPLACEMENT	PHASE 11		LINE # W	LINE # WC3EL0006R	O	D. NAWC-ND	
		FY 1993	2	500	FY 1994	7,4	1 10. 1	FY 1995	ž		FY 1996	2		FY 1997	
Element of Cost	oty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	0ty	Unit	Total	<u>}</u>	Unit	Total	2	Unit	1
Нагдиаге										-	120	120	-	2002	200
Software										-	089	089	_	2,40	240
Installation												•		3	ő
Other								=							
TOTAL			•											:	:

OPERATIONAL DATE: September 1995

plays a key role in Navy planning and system development, there are times that the system cannot address some project requirements. Some examples of the strike warfare. The current system was developed using hardware architecture and software technology of the late 1970's. Although the current system limitations are simulation run-time, model detail, and ease of use (user friendliness). Since the software is tightly integrated to the production hardware cannot be modified to address state-of-the-art software, the system must upgrade its hardware to maintain real-time Division (NAWCWD) to aid in the evaluation and development of fleet tactics and conceptual weapon systems in the areas of anti-air, anti-surface, and DESCRIPTION: The Weapons and Tactics Analysis Center (WEPTAC) is an interactive wargaming facility developed by the Naval Air Warfare Center Weapons

The proposed method will provide the ADA software development, and state-of-the-art hardware, to identify, design and implement the real-time system requirements for a modern simulation capability. The new system will continue to provide an increase in the productivity of WEPIAC personnel and the quality of the analytical capabilities available to center management and off-center sponsors. With the current system, the run-time of any given project is one-fourth real time. With the proposed system upgrade the run-time will be significantly improved. In addition, the time spent performing data reduction and the time spent performing analyses should be reduced by half. This time savings allows for more extensive analyses on projects. will be an increase in the quantity and quality of projects.

If the WEPTEC Phase II project is not funded, the following limitations will continue to impact the quality of WEPTAC analysis: the existing system will not meet the requirements to run in real-time, it will not be flexible enough to model current and conceptual weapons and platforms because of obsolete hardware, and it will not have sufficient compute power to allow for any further model/software upgrade or development. Therefore, with the status quo system, the assumption must be made that critical analysis issues would be performed with intensive and extensive manual labor.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.3 years Return on Investment (ROI) = 52% internal Rate of Return Average Annual Savings

			CAPITAL (D	L PURCI	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION inds)							A. FY BI	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmen	ŧ					C. MISSION PLA	C. MISSION PLANNING EQUIPMENT REPLACEMENT	G EQUI	PMENT		D. NAWC-WD	G4-2A	
											LINE # W	LINE # WC4EL0007R			
	$\dashv$	FY 1993	23		FY 1994			FY 1995	ž	_	FY 1996	9		FY 1997	
Element of Cost	ċ	Unit	Total	ć	Unit	Total		Unit	Total	_ ;	Unit	Total		Unit	Total
Training of the	;		2031	3	1802	rost	À	1807	Cost	Š	Cost	Cost	σζ	Cost	Cost
Hardware										-	495	495		245	745
Software										-	495	567		745	745
Installation										-	10	10	_	10	10
Other															
		:													
TOTAL											1,000	1,000		1,500	1,500
Manage Company of the company of the															

Narrative Justification: OPERATIONAL DATE: December 1995

design of future weapons systems. Major programs are currently underway to control, improve, simplify and coordinate mission planning. Emerging new technologies and weapons systems will have to be integrated into these systems. NAWCWPNS programs such as the Joint Stand Off Weapon (JSOM), Standoff Land planning encompasses a broad spectrum of activities. For a particular weapon and delivery platform, mission planning involves accessing imagery of a specific target, preparing a reference scene of the target from this imagery, locating the target precisely, determining weaponeering details associated with the target structure and kill mechanism, developing the route of access of the weapon and delivery platform to access the target area which includes Mission consideration of various threats to the success of the mission, and calculating the number of weapons that will be required to neutralize the target and Attack Missile (SLAM), Highspeed Antiradiation Missile (HARM), the Harpoon Weapon System, the Joint Direct Attack Munition (JDAM), the emerging Tomahawk insure survival of the delivery platform. In addition, the individually planned missions must be coordinated with the overall operational plan being DESCRIPTION: Mission Planning is important to the development, design, and utilization of modern weapons systems, and is a significant driver of the Baseline IV, and others, must develop systems unique mission planning capabilities to integrate into this complex mission planning environment. prosecuted

knowledge engineering tools as well as facility computer hardware. The laboratory makes available to the technical development team of NAWCWPNS the resources required to perform mission planning development tasks essential to NAWCWPNS programs. Failure to upgrade the Mission planning Development and Support Laboratory will seriously compromise our efforts to maintain the significant role of NAWCWPNS in the mission planning arena. these funds are to upgrade the mission planning resources required to support the broad spectrum of mission planning development activities. The mission accommodate these capabilities, the funds are being used to upgrade the Tactical Aircraft Mission Planning System (TAMPS) with automated weaponeering and planning laboratory is able to mimic all the mission planning activities performed aboard an aircraft carrier in the Command Intelligence Center.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.6 years Return on Investment (ROI) = 44% Internal Rate of Return = 56% Average Annual Savings = \$1,751K

			CAPITA	NL PURI	(Dollars in Thousands)	TIFICATIO	2						A 89 9	A. FY 1996/1997 BIENNIAL	7.
B. Department of the Navy/Research & Development	arch &	Developmen	t t					C. CESE/MHE REPLACEME	CESE/MHE REPLACEMENT					D. NAWC-WD	
		FY 1993	73	L	FY 1994	71		FY 1005	95	1	LINE # WC4ES6UUUUR	4ESOUUUUR		V 4007	
Element of Cost	) }	Unit	Total	7	Unit	Total			1		Unit			Unit	
Harduaro			1602		1902	1803		rost	Cost	λ	Cost	Cost	oty	Cost	Cost
Software Installation Other										<del>-</del>	893	893	_	933	933
101		!	;						1						
	1						_				893	893		933	933

Narrative Justification: OPERATIONAL DATE: September 1998

area (remote sites), personnel are required to travel up to 100 miles a day on unimproved roads, some of which are only checked once a day by the Range Patrols. These conditions make reliable transportation imperative for all personnel at NAWCWD. The vehicles acquired in FY96 and FY97 will replace those that are now over age, have high mileage, have high maintenance costs and parts which are now difficult to acquire. The FY96 purchase includes about 20 trucks of various tonnage, 4 forklifts, 2 tractor crawler and an industrial pumper. For FY97 the vehicles include about 21 trucks of various tonnage, 4 DESCRIPTION: The total number of vehicles and equipment at NAWGWD is 1,222. The average age of the fleet is eleven years (1983). Considering the vast tractors, and 5 forklifts.

site consolidation, there has been an increase in travel between NAWCWD China Lake and NAWCWD Point Mugu. Newer vehicles in C-Pool makes travel between these two locations safer. Since 1980 there have been substantial vehicle improvements in smog controls and fuel economy. New vehicles would help reduce emissions at NAWCWD and provide a cost avoidance in fuel costs. A part of the new replacement vehicles will use alternative fuels to meet currently As newer vehicles are acquired, some of them are placed in C-Pool. This helps keep the C-Pool Fleet reliable to support off-station travel. Since the enforced environmental laws. Without a consistent vehicle replacement program, there will be no adequate, safe, reliable transportation at NAWCWD. As vehicles become older, parts are harder, if not impossible, to acquire. As major components fail, the vehicles will be excessed because no replacement parts are available. NAWCWD will not be able to comply in the future with the more stringent vehicle emission laws. This could lead to NAWCWD paying fines for not meeting requirements.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.4 Return on Investment (ROI) = 22% Average Annual Savings = \$402)

			CAPITA	L PURCI ollars	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. FY B1 BU	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	rch &	Developmer	±					C. PWB Direct REPLACEMENT	rect Lase	, Imag	C. PWB Direct Laser Imaging System REPLACEMENT		O. NA	D. NAWC-AD	
											LINE # A	LINE # A16EL5701R			
		FY 1993	33		FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	0ty	Unit	Total	, ,	Unit	Total	<b>\</b>	Unit	Total	240	Unit	Total	į	Unit	Total
															63
PWB Direct Laser Imaging System										-	765	765			
		:	:		:									:	
TOTAL											292	292			

Narrative Justification: OPERATIONAL DATE: January 1996

The Direct Laser Imaging System (DLIS) will reduce the fabrication time for printed wiring board (PWB) manufacturing of prototype and production boards by eliminating phototools, artwork, and film preparation. The proposed DLIS will image the panel directly from the CAD/CAM data files, thus allowing design changes to be implemented without the mate ial cost or time loss required to produce new phototools. The current method uses the CAD/CAM data to plot a silver halide master film. The silver halide is inspected and used to produce working diazo films. The diazo films are inspected and hand registered to the PWB panels. The panels are then exposed and developed. During this process the films are susceptible to handling damage which, if unnoticed, could result in reduced process yields.

Upon completion, the PWB's are hand stamped with serial numbers. This process requires individual characters to be hand stamped one at a time. The inust then be allowed to dry before being cured by baking in an oven. The stamping operations and the filmprep operations are very labor intensive. The two operations require 2-4 days of cycle time and an estimated 15% of the labor required to produce a PWB. The current process is capable of producing lines only as thin as 5 mils. When lines are being produced at this small width, a reduced yield will be noticed.

Currently an average of 900 hours of work are input to the PWB shop per week. The proposed DLIS would eliminate the film plotting, filmprep, and hand stamping operations. The DLIS would also reduce scrap by improving registration, eliminating photo tool defects, reducing cycle time, and improving line width capability. By eliminating the stamping and the filmprep operations, a 15% reduction in direct labor hours will be obtained.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period

Payback Period = 2.6 years Return on Investment (ROI) = 28%

ECONOMIC ANALYSIS IMPACT:

Average Annual Savings

Customer requirements for PWB's using lines finer than 5 mil could not be met. PWB manufacturing cycle time would not be decreased by 1-3 days and savings would not be realized If the proposed DLIS cannot be procured, NAWCAD would continue to manufacture PWB's by current methods.

			CAP 1 TA (1)	NL PURC	(Dollars in Thousands)	(Dollars in Thousands)							۸ ۳. ۱۹	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	search &	Developmen	<b>.</b>					C. CORPC SYSTE REPLA	CORPORATE NETWO SYSTEM REPLACEMENT	RK EM	CORPORATE NETWORK EMERGENCY POWER SYSTEM REPLACEMENT	ENCY POWER	D. NA	D. NAWC-WD	
		FY 1993	2		FY 1994	74	L	FY 1995	5	L	FY 1996	_	L	FY 1997	
		Unit	Total		Unit	Total		Unit	Total		Unit	Total		Unit	Total
Element of Cost	aty	Cost	Cost	٥ţ٧	Cost	Cost	aty	Cost	Cost	aty	Cost	Cost	aty	Cost	Cost
Hardware Software Installation Other										_	700	700	-	350	350
TOTAL											002	200		350	350

Narrative Justification: OPERATIONAL DATE: June 1998 If utility power is lost in a small localized area, such as the FOIS Hub, the corporate network will fail even though utility power at all other locations is uninterrupted. This results in a loss of user productivity until the network is restored. Once utility power is restored and if the network equipment is not damaged, most units require manual rebooting. Depending on the scale of the outage, significant manpower can be required to recover the network. If equipment is damaged, then trouble-shooting and costly equipment repair or replacement is required. The importance of daily reliable operations for both on- and off-center links is Currently there is no emergency power backup system for key areas of the corporate network. increasing as demonstrated by the increased usage. DESCRIPTION:

this will be a multi-year phased-in approach. The components include charger eliminators to convert utility power for running DC powered communications equipment and charging batteries, inverters for providing battery power to AC powered communications equipment and support systems including network management computers, batteries for short-term uninterruptible power backup, a step-down transformer, increased utility power to the FOIS Hub, and air conditioning units.

utility power outages. Communications will be lost at locations suffering power outages and network user productivity will cease until utility power can be reestablished and the corporate network can be rebooted. Without this system, there is no guarantee that service for critical communications on off-center can occur (e.g. transmitting financial information to Pt. Mugu for processing, or earthquake prediction data). The high level of troubleshooting time and costly equipment repair and replacement will continue without this system. equipment damage and costly replacement, and technician trouble-shooting time is reduced for diagnostics of transient network problems. Without this Eliminating power spikes due to temporary unstable utility power eliminates network emergency power backup system, the corporate network will continue to become unreliable at all critical locations when subjected to isolated With increased network reliability, user productivity will be realized.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9
Return on Investment (ROI) = 26%
Internal Rate of Return = 28%
Average Annual Savings = \$270.41

		ļ.,													
			Y S	L PURC Jollars	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F.	A. FY 1996/1997 BIENNIAL	_
A Densetment of the Name													ಹ	OGET	
o cpairment of the Navy/Kesearch & Development	arch &	Developmen	¥					C. Vibration/SI REPLACEMENT	C. Vibration/Shock Shaker System REPLACEMENT	Shake	System		D. NA	D. NAWC-AD	
	-										LINE # A	LINE # AIGEL7402R			
		FY 1993	33		FY 1994	**		FY 1995	2		FY 1004	4		100	
		Unit	Total		- init				1					1461	
Element of Cost	aty		Cost	aty	Cost	Cost	0ty	Cost	Total Cost	ţ	Unit	Total	;	Unit	Total
											1555	1803	<u>,</u>	Lost	Cost
Vibration/Shock Shaker System															
										-	009	009			,
					-										
												•			
			_												
TOTAL					:			:				:			
											909	009			
Narration.													ĺ		

OPERATIONAL DATE: May 1996

This equipment will replace a thirty-seven year old mechanical shaker system. A new system is needed to maintain current capabilities, expand shock capabilities, and increase energy efficiency. This project will affect all programs requiring vibration testing or environmental stress screening at NAWC-AD and many of the team's outside customers. Programs include TRSS, AWW-13, SMQ-11, V/STOL OLS, Walleye, FEWSG, GPS, and Bomb Racks.

The current machine can only perform sine vibration and not random. It cannot perform any shock testing and it requires constant operator monitoring. There is no system at NAWCAD that is capable of shock testing bomb racks. All bomb rack testing is currently contracted.

The new vibration/shock shaker system will provide more accurate tests on large systems and will improve production work turnaround times. The new system will also eliminate the need for contracting out bomb rack testing. It will relieve heavy workload on existing slip table systems and eliminate the need for overtime. The new system will be more accurate and easier to set up since it will be digitally controlled instead of mechanically controlled.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Return on Investment (ROI) = 91%

Average Annual Savings

ECONOMIC ANALYSIS IMPACT:

Current vibration/shock systems will If this vibration/shock shaker system is not purchased NAWCAD will not have the capability to do bomb rack testing. Current vibration/shock systems will continue to be used heavily and more overtime will be required to complete many projects. Such high usage rates will inevitably create system failures. This will only add to the already backlogged list of programs waiting to test their equipment.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands) BUDGET	y/Research & Development C. EYE-SAFE LASER TRACKER  REPLACEMENT LINE # ALGELO001R	FY 1993 FY 1994 FY 1995 FY 1996 FY 1997	Unit Total Unit Unit Unit Unit Unit Unit Unit Unit	1 260 560	
	B. Department of the Navy/Research & Development		Element of Cost	Eye Safe Laser Tracker	

Narrative Justification: OPERATIONAL DATE: September 1996

Dynamically measures the 3-D position of aircraft during simulated aircraft recovery approaches at the test site. This equipment demonstrates key landing aid development concepts and capabilities prior to and throughout various NAWC API programs.

Utilizing leased equipment as opposed to purchasing the equipment can lead to invalid data because the same equipment may not be available for lease each time its needed. This results in program delays. In addition, the leased equipment must be installed, aligned, and calibrated specifically for NAWCAD test runway. This equipment is used approximately 45 days per year.

Anticipated Benefits: More efficient use of personnel in a downsizing environment since equipment will be on site and setup, calibration, and adjustments will not be necessary.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Return on Investment (ROI) = 28% Average Annual Savings

Economic Analysis Impact: Non-procurement will perpetuate the problem of executing tasks that are error-pron and time consuming. Where semi-automated tools are available they are currently not standard between users and are awkward to use together.

ION A. FY 1996/1997 BIENNIAL	۵	LINE # AW6EL7501R	FY 1995 FY 1996 FY 1997	Unit Total Unit Total	Uty Cost Oty Cost Cost Oty Cost	1 550 550	
AL PURCHASES JUSTIFICATION Dollars in Thousands)			FY 1994	Unit Total	+		
. PURCHA				;	<u>,</u>		:
CAPITAL (De	÷		3	Total	1603		
	Developmer		FY 1993	Unit	1503		
	arch &	-		, <del>t</del> a			
	B. Department of the Navy/Research & Development			Element of Cost		Open Architecture Avionics Display System	TOTAL

Narrative Justification: OPERATIONAL DATE: June 1996 This system will provide a prototype open atternative to current closed proprietary designed avionics systems. The system will use an open Commercial off-the shelf approach to construct a prototype avionics package for fixed and vertical wing surveillance platforms. The system will include three components (a) a set of display heads for operator with existing on aircraft sensors, navigation and communiation systems. The system will include three components (a) a set of display heads for operator viewing of sensor and tactical data, (b) a processor and interface component to format data for the displays and interface with other avionics systems, and (c) a set of operator entry components which will provide the air crew with the ability to enter data and respond to system processing.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9 years Return on Investment (ROI) = 25% Average Annual Savings = \$138K

Economic Analysis Impact:

This system will demonstrate the performance, cost, and power savings over traditional closed architecture systems. The performance improvements will be 4 fold, power savings 3 fold, and cost savings 4 fold over existing designs. The new system will reduce power and cooling annually by 50% and maintenance by 75%. Productivity will increase by 40% which will result in reduced manpower requirement from 4 workyears to 2.5 workyears.

			3	L PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	(Dollars in Thousands)							A. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	_
B. Department of the Navy/Research & Development	arch &	Developmen	یا					C. INSTRUMENTA REPLACEMENT	C. INSTRUMENTATION UPGRADE REPLACEMENT	UPGRA	DE LINE # W	LINE # WC7EL0502R	D. N	D. NAWE-UD	F
		FY 1993	2		FY 1994	ž.		FY 1995	2		FY 1996	8		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	0ty	Unit	Total Cost	Oty	Unit	Total	, ,	Unit	Total	2	Gait	Total
Hardware													-	75.0	1503
Software													-	2	16
Installation												٠	,	25.0	250
Other														3	Š
TOTAL		:				:							-		

Narrative Justification: OPERATIONAL DATE: October 1998

DESCRIPTION: Weapons Survivability Lab (WCL) is the premiere test site for aircraft survivability and related testing. Past tests have looked at survivability of the F-4 Phantom, the F-14 Tomcat, the A-6 Intruder, the F/A-18 Hornet, the cancelled P-3 and A-12, and Air Force airplanes including the F-15 Eagle and the F-22. Current test subjects include the F/A-18 E/F upgrade, the AX and the V-22 Osprey. The capability of the High Velocity Airflow System (HIVAS) to generate 500 kt airflow over test specimens makes WSL invaluable.

WSL is an example of leading-edge technology in aircraft survivability testing, vulnerability assessment, gunfire and ordnance damage assessment, etc... The integrity of WSL will quickly deteriorate if its technology is allowed to become obsolete. Failure to provide funding for this effort will result in a continued decline in the control and instrumentation capabilities of WSL, resulting in lost data, lost test opportunities, and customer dissatisfaction. This procurement will purchase modern test support equipment for the WSL and service or replace existing equipment including instrumentation amplifiers, instrumentation equipment rooms, event sequencer, digital oscilloscopes, pulse code modulated (PCM) equipment and landlines to test pads. Upgrade or replace existing control room equipment such as switches, control panels, and digital meters.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

= \$154K beginning October 1998 rayback Period = 5.4 years Return on Investment (ROI) = 15% Average Annual Savings

			CAP 1 TA (D	L PURCI	IAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							₹ 89	A. FY 1996/1997 BIENNIAL BUDGET	_
B. Department of the Navy/Research & Development	search &	Developmer	t t					C. CONCURRENT EL	RENT ENGR.	WORK	C. CONCURRENT ENGR. WORKGROUP SYSTEM PRODUCTIVITY	OUP SYSTEM	D. R	D. NAWC-WD	
		FY 1993	93		FY 1994	7		FY 1995	5		FY 1996	5		FY 1997	
			Total		Unit	Total		Unit	Total		Unit	Total		Unit	Total
Element of Lost	aty	Cost	Cost	οţλ	Cost	Cost	oţ	Cost	Cost	aty	Cost	Cost	oty	Cost	Cost
Hardware										-	1,150	1,150	-	975	975
Software										-	300	300	_	225	225
Installation															Ì
Other															
		:	:												
TOTAL											1,450	1,450		1,200	1.200

Narrative Justification: OPERATIONAL DATE: May 1995

Engineering (CAE) System, Weapon Systems Analysis System and to establish a prototype Concurrent Engineering Workgroup system. In our current phase (Phase descriptions of the product and all associated process activities and organizational resources; 2) a global object framework, utilities, and services that In Phase I (FY92) the objective was to begin Workgroup (CEW) system and migrate these technologies into the other Divisions. The Phase III objective is to expand the networking environment of the Department to provide access to the key elments of the CE system. These key elements consist of: 1) a shared information model that captures complete 11) the objective is to complete the obligations of each division and to expand the capabilities established in Phase 1 of the Concurrent Engineering enable the use of the shared information model by a network of cooperating, computer-based clients; and 3) methods, tools and advisors that assist in meeting current obligations of the Microprocessor Design Center, the Electronic Design and Simulation Facility, the Airframe Division Computer Aided DESCRIPTION: This procurement consists of an integrated system which is being developed in several phases. concept evaluation, analysis, and decision making.

However, the technical aspects of CE are not being addressed. The three phased approach presented above will provide the foundation for CE technologies to be exploited. A key aspect of the CE technologies is the CALS initiative. The envisioned system will enable developed products to be CALS compliant and insure that the data transfer between multiple organizations, software. By focusing on an enterprise-wide development of tools such as CAD, CAE, CAM, and CAPP, more design iterations will occur (better quality), multiple disciplines, and multiple facilities will be seamless and understandable. Much of the system consists of design and analysis equipment and productivity will be enhanced (less time), and schedules will be compressed (less cost). the Naval Air Warfare Center is actively pursuing CE projects throughout the Center.

This report stated that CE can reduce development time 30-50%, engineering changes 65-90%, time to market 20-90%, and increase overall quality 200-600%. It further stated that the productivity in organizations that adopted CE practices was up 20-110%. Industry leaders such as General Electric, Texas Instruments, Westinghouse, and Boeing are all claiming profound success by using CE technologies. This system will address the key technical issues associated with CE. The National Institute for Standards sponsored an IDA report to investigate the benefits of concurrence in product development.

Microprocessor Design Center, the Electronic Design and Simulation Facility, the Airframe CAE System, and the Weapon Systems Analysis System. If the follow-on Phases are not implemented met, then our competitive advantage will be jeopardized, equipment and software will be outdated, inadequate and If this system is not procured the initial investment in Phase I will be nullified. There is a current investment of \$879K in Phase I in the unable to execute state-of-the-art applications, NAWGWD needs to maintain the fundamental foundations to utilize CE and CALS technologies.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH: Payback Period = 1.8 year

Return on Investment (ROI) = 39%

Average Annual Savings = \$2,285K beginning in May 1995

Element of Cost aty C		C. NEW FLIGHT TEST INSTRUMENTATION NEW CAPABILITY LINE # W FY 1995 Unit Total Cost Oty Cost 1 200	INSTRU 1		A. FY 1996 BIENNIA BUDGET D. NAWC-WD OTY Cos	A. FY 1996/1997 BIENNIAL BUDGET D. NAWC-WD FY 1997 TY 1997 1 700 7	7 7 Total Cost 700
TOTAL	:			:			

Narrative Justification: OPERATIONAL DATE: October 1995 DESCRIPTION: Hybrid chips process multiple analog data sources and output them as a single pulse code modulation data stream. Presently there are no spare chips and the original manufacturer will not commit to manufacture more. A replacement part has been identified and the procurement of 10 spares is essential to avoid severely impacting the NAWCWD flight test operations and the loss of data and/or flight test.

are required to meet the new more sophisticated aircraft weapon system T&E requirements. Without adequate capability to meet these new requirements, each installed on the aircraft the engineers would be unable to transmit data from that aircraft and therefore unable to evaluate the data in real time. This would prevent us from performing about 90% of the testing required to support the programs at NAWCWD Pt. Mugu. Modern technology instrumentation systems The encryptors are required to encode the telemetry data signal'form the aircraft. Encrypted data is required for security purposes. One additional encryptor is needed for each Real Time Telemetry (RTIM) data stream transmitted to support the required system availability. If the encryptors are not lost flight test may cost up to \$40K. This will lead to program delays and increased costs for testing.

Without the encryptors, the engineers would be unable to transmit data from the aircraft and would therefore be unable to evaluate the data in real-time. Failure on the part of NAWCWD Pt. Mugu to support flight test aircraft by maintaining a minimum level of technical ability would adversely impact its reputation as a leader in weapons evaluation and its ability to attract new projects/customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years Return on Investment (ROI) = 25% Average Annual Savings = \$492K

			CAPITAL (Do	L PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	ITFICATION ands)							A. FY BI BU	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	rch &	Developmen	ıt					C. Elec Sys Dep Upgrades NEW MISSION	ys Dept/En es SSION	viron	C. Elec Sys Dept/Environmental Test Upgrades NEW MISSION	ntal Test	D. NAWC	'NC	
		FY 1993	23		FY 1994	7/		FY 1995	5		FY 1996	2		FY 1997	
Element of Cost	o t	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total	aty	Unit	Total
Elec Sys Dept/Environmental Test Upgrades				***						-	729	479			
TOTAL											929	674		1	

# Narrative Justification:

Operational Date: December 1997

instrumentation, load bank, and gearbox assembly. EMI instrumentation upgrades will automate testing. Upgrades consist of radio frequency voltmeter; high The Walk-in chamber will provide ultra low temperature for testing aircraft power generators and associated components. The new system will provide advanced automated controls and safety interlocks, and will be environmentally "safe" by using non ozone depleting refregerants. A 500 HP drivestand will provide a new capability to test the next generation aircraftgenerator at loads up to 540KVA. The drivestand will consist of a 500 HP motor, controls and frequency analyzer and synthesizer; radio frequency amplifier, ultra high power audio amplifier, high power coupling transformers, and a control system. This submission is to upgrade the walk-in temperature/altitude chamber, replace one 300 HP drivestand and upgrade MIL-STD-461 EMI test instrumentation.

3.2 years 24% Return on Investment: Payback Period:

\$159K Average Annual Savings:

The electrical Systems Department is the only DOD test and evaluation activity with the capability to conduct full qualification testing of aircraft electrical power systems. Without the 500 HP drivestand we will not be able to test the increased capacity generators proposed for new aircraft designs. In addition, lack of automated shutdown when the chamber refrigeration system is operating outside of limits could result in catastrophic failure and loss of test capability. Economic Analysis Impact: Failure to replace the refrigeration system will result in work stoppage if a replacement refrigerant is not available.

EMI testing is very expensive because of special calibration and maintenance requirements. Failure to automate EMI testing will result in increased costs and loss of work because of the cost of testing.

			CAPITAI (D	L PURCI	(Dollars in Thousands)	IFICATION ands)							A. 57	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	earch &	Developmen	یا					C. CASS !	C. CASS STATION EQUIPMENT NEW MISSION	JIPMEN		LINE # WP7EL000XN	D. NA	D. NAWC-WD	
		FY 1993	3		FY 1994	7		FY 1995	5		FY 1996	9		FY 1007	1
Element of Cost	aty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total	aty	Unit	Total Cost	aty	Unit	Total
CASS Station Equipment			44										-	1,728	
TOTAL			1					1 4 1 1							•

# Narrative Justification: OPERATIONAL DATE: 1998

This request results from the design and development of modularly constructed Automated Test Equipment (ATE). The development program was executed in response to fleet concerns regarding serious deficiencies in existing ATE and recommendations of an extensive 1976 SECNAV study on test equipment. The Consolidated Automated Support System (CASS) design incorporates easily reconfigurable modules which can address varying test requirements (e.g. electrooptical, radio frequency, laser, infrared, inertial guidance, etc.) and will also allow modification to meet the demands of future technologies.

eventually replace the existing testers which includes both common and peculiar ATE. Common ATE has the capability to test electronic assemblies from many different weapon systems, while peculiar ATE tests only one weapon system. CASS represents an approach to testing which consolidates the numbers and types which different configurations are composed to meet specific user test requirements. Only the number of test modules and their collective packaging change and allow Test Program Set transportability. The four rack-mount configurations include a hybrid tester, RF configuration, Electro Optic configuration and to adapt to different user needs. Utilizing the CASS architecture, low-level modules, and a distributed computing systems, it is possible to produce CASS configurations optimized to the particular application. These can range from multiple rack-mounted configurations. All share common assets and software of testers used to implement electronics support. CASS has a standard, yet open-ended system architecture that uses a set of standard test modules from CASS is the Navy's latest state-of-the-art avionics automated test equipment to be used to test present and future complex weapons system. CASS will communication/navigation/identification (CNI) configuration.

and intermediate maintenance levels, and provide Navy-wide test capability for existing and future avionics systems. CASS will increase repair facility throughput capability, reduce spare parts and personnel training requirements, and significantly reduce the space required for avionics testing aboard The CASS program will increase weapon system material readiness, reduce life cycle costs through standardization, improve tester sustainability at depot space critical aircraft carriers.

ECONOMIC ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9 years Return on Investment = 25%

Average Annual Savings = \$439K

				Total Cost	6,584	3,057	0 64.1	
266			797	28	9	M	· · ·	
FY 1996/1997 BIENNIAL BUDGET	Ş		FY 1997	Unit				
A. FY 816 8UG	D. NAWC			o ty				
		LINE # NESOOO		Total Cost	7,458	3,599	11.057	;
	(000,0	LINE #	FY 1996	Unit Cost			:	
	(<\$50			aty				*
	Non-ADP Equipment (<\$500,000)			Total Cost		·		
	C. Non-ADP		FY 1995	Unit Cost	-	- 2		
				oty				
FICATION nds)				Total Cost				
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)			FY 1994	Unit Cost				
PURCH			1 1	Ωty				
	L			Total Cost				÷
	evel opmen		FY 1993	Unit Cost			:	
	rch & C			0ty				
	B. Department of the Navy/Research & Development			Element of Cost	Aircraft Division	Weapons Division	TOTAL	Narrative Justification: See Attached.

# CAPITAL PURCEASES JUSTIFICATION NAVAL AIR WARFARE CENTER

# ATTACHMENT FOR 9B EXHIBIT

NESOUDO NON-ADP EQUIPMENT (< # 500,000) (\$ IN THOUSANDS)

LINE	#	DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
AS6	ESOOOOR	CALIBRATION LAB EQUIPMENT (VARIOUS)	713	
A W 6	ES5408R	AN/URR-81 SONOBUOY RECEIVER SYSTEM	485	
AA6	ES0000	MISCELLANEOUS EQUIPMENT	468	
AI3	ESOOOOR	EQUIPMENT INSTALLATION	300	300
AW 6	ES5209R	PORTABLE TRANSMIT TOWERS FOR ANTENNA RANGE	300	
AL 6	ES0001R	ENVIRONMENTAL STRESS SCREENING TEST SYSTEM	300	
A W 6	ES7505R	MULTI-BAND/SENSOR AVIONICS INTEGRATION STATION	275	
A W 6	ES6504R	TRAVERSE FOR LASER VELOCIMETER	250	
AI6	ES5703R	X-RAY PREDRILL PUNCH	250	
A W 6	ES7507R	ADVANCED AVIONICS PERFORMANCE MONITORING	250	
AI6	ES5719R	PLATING A & E	230	
AI5	ES7411R	TEMPERATURE/ALTITUDE TEST CHAMBERS	225	
A X 6	ES0049R	VP & VS ACOUSTIC TEST/RACAL RECORDER	200	
I 6	ES5005R	ACOUSTIC IMAGING INSTRUMENT	170	
AL 6	ES0021R	Fire Fighting Pumper Truck	150	
AI6	ES5704R	OPTICAL POST ETCH PUNCH	150	
I4	ES5908R	ENVIRONMENTAL TEST CHAMBER	150	150
I 6	ES5008R	FLIP CHIP ALIGNER BONDER	135	
L 6	ES0020R	Video Teleconference System	135	
W 6	ES6607R	AUTOMATED STRAIN MEASUREMENT SYSTEM	120	
W 6	ES6605R	HIGH-TEMP ENVIRON/VACUUM FURNACE	120	
I 6	ES5516R	NETWORK ANALYZER HP8722C	110	
x 6	ES0047R	VQ LAB	100	
x 6	ES0048R	VAW LAB	100	
L 6	ES0013R	Radar Cross Section System	98	
L 6	ES0003R	Spectrum Analyzer	97	
		Crane, %-10 ton, ATU 4X4	95	
		Signal Plotting System	95	
		NOISE FIGURE MEAS. SYS. HP8970S	95	
	ES0009R		95	
	ES0012R	Scanning Electron Microscope	95	
	ES5A10R	HARNESS/CABLING SYSTEM (3)	90	
	ES5A09R	SEMI-AUTOMATIC COIL WINDERS (3)	90	
	ES5006R	FAST FIRE THICK FILM FURNACE	90	
	ES5007R	SUBSTRATE CONTINUITY TESTER	80	
	ES5918R	DIGITIZING O'SCOPE (2) HP54124T	76	
	ES0016R	Spectrum Analyzer	75	
	ES0007R	Vibration Monitoring System	69	
	ES0010R	Electro-Magnetic Pulse Shielded Enclosure	67	
	ES0006R	Energy Dispersive X-ray System	67	

# CAPITAL PURCHASES JUSTIFICATION

## NAVAL AIR WARFARE CENTER

# ATTACHMENT FOR 9B EXHIBIT

# NESOOOO NON-ADP EQUIPMENT

(\$ IN THOUSANDS)

LINE	#	DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
AL 6	ES0002R	Puise-Code-Modulation Decomulator System	65	
AL6	ES0014R	Electronic Controller	63	
AI6	ES5915R	DEGREASER REPLACEMENT	60	
AX6	ES0056R	HP8791 FASS	55	
AL6	ES0017R	Universal Measuring Sytem	55	
AL6	ES0015R	MTS Micro-Console	50	
AI6	ES7411R	CAPILLARY ELECTROPHORESIS SYS.	50	
A W 7	ES7501R	OPEN ARCHITECTURE SENSOR INTERCONNECT NETWORK		475
AL7	ES0001R	CNC TURNING CENTER		450
A X 7	ES0061N	DYNAMIC COLLIMATOR		385
A X 7	ES0060N	WIDE FIELD OF VIEW COLLIMATOR		385
X 7	ES0059N	AIRCREW SYSTEMS LIGHTING LAB UPGRADE		359
A I 7	ES5703R	AUTOMATIC ELECTROPLATING LINE		350
X 7	ES0058R	ELECTRICAL SYSTEMS DEPT/ENV TEST UPGRADE		306
17	ES5704R	ELECTROLESS/DESMEAR LINE		260
		SOLAR RADIATION FACILITY		235
L 7	ES0012R	AIRCRAFT CRASH/RESCUE TRUCK		230
X 7	ES0054R	VP & VS ACOUSTIC TEST/RACAL RECORDER		200
L 7	ES0003R	Signal Conditioning System		190
	ES6603R	HIGH TEMP POLYMERIC SYSTEM		180
	ES0000	MISCELLANEOUS EQUIPMENT		163
	ES7411R	TEMP./ALTITUDE TEST CHAMBERS		155
	ES7505R	ADVANCED BUS/NETWORK MONITOR		150
I 7	ES5705R	AUTOMATED OXIDE LINE		150
		GROUND ELECTRONICS EQUIPMENT		150
	ES0005R	X-ray Fluorescence Analyzer		105
	ES0055R	VAW LAB		100
	ES5A06R	WIRE PREP MACHINE		100
	ES0053R			100
W 7	ES7911R	SPECTRUM ANALYSIS TOOLSET		100
L 7	ES0002R	Received System With software		97
L 7	ES0007R	Grips Upgrade/Four Post Frame		90
	ES0004R	Photo Imaging System		90
	ES5508R	SPECTRUM ANALYZER HP8566B		75
	ES0010R	Hi-Speed Video		75
	ES0009R	Digitizing Oscilloscope		70
L 7	ESOUOSR	Spectrum analyzer		65
17	ES5510R	MIL-STD 1553 BUS ANALYZER		60
	ES5909R	SIGNAL GENERATOR HP83640A		60
I 7	ESOO11R	Forklift, Three Ton, Gas		60

# CAPITAL PURCHASES JUSTIFICATION NAVAL AIR WARFARE CENTER ATTACHMENT FOR 9B EXHIBIT NES0000 NON-ADP EQUIPMENT (\$ IN THOUSANDS)

LINE	#	DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION	:	
AI7	ES5511R	MICROWAVE ANALYZER HP8510C .		58
A I 7	ES7407R	VIBRATION AMPLIFIER SYSTEM		56
AIRCR	AFT DIVIS	ION NON-ADP EQUIPMENT (<\$500,000)	7,458	6,584

# CAPITAL PURCHASES JUSTIFICATION

## NAVAL AIR WARFARE CENTER

# ATTACHMENT FOR 9B EXHIBIT

# NESO000 NON-ADP EQUIPMENT (<\$500,000) (\$ IN THOUSANDS)

LINE	#	DESCRIPTION	FY96	FY97
		WEAPONS DIVISION	÷	
wc6	ES0565	CNC LATHE	454	
	ES0567	FIRE PROTECTION SYSTEM	382	
W C 6	ES0568	SELECTIVE LASER SINTERING MACHINE	350	350
	ES0570	VIBRATION SYSTEM	290	
	ES0571	SPUTTERING SYSTEM PHASE I-III	263	222
• •	ES0572	W-BAND NETWORK ANALYZER	258	
	ES0573	MICROWAVE TEST STATION	230	
	ES5025	BLDG 513 AIR COMPRESSOR	185	
	ES0574	OPTICAL COMPONENT CHARACTERIZATION	177	155
• •	ES0530	GPS SIMULATOR UPGRADES	175	
	ES5020	DATA ANALYSIS W/S	150	150
	ES0575	ARGON ION DYE LASER	150	
	ES0576	INCOHERENT INTERFEROMETER	150	
	ES0577	CHEMICAL VAPOR DEPOSITION UPGRADE	130	
	ES0541	EMERGENCY RADIO SYSTEM PHASE II - IV	110	105
	ES5026	SOLAR RADIATION TEST	100	
	ES0000	MISCELLANEOUS EQUIPMENT	45	
	ES0579	UPGRADE FOR NMR SOLIDS		460
	ES0580	LASER RADAR SYSTEM		395
	ES0581	TWO COLOR INFRARED IMAGERS		254
	ES5027	COMPRESSER 3000CF		155
	ES0582	SPARES FOR TCIR (T ITEMS)		150
	ES0583	MICRODYELECTROMETER		105
. •	ES0584	PURCHASE SHOP MACHINES		105
	ES0585	HIGH PRESSURE FACILITY UPGRADE		100
	ES0586	INSTRUMENTATION TAPE RECORDER		100
	ES0587	HP NOISE FIG MEASURMENT		86
	ES0588	CAPILLARY/SLIT RHEOMETER		60
	ES0589	VIDEO LABELING SYSTEM		5
	ES0590	DIGITAL DATA RECORDER		5
MEAPO	NS DIVIS	ON NON-ADP EQUIPMENT (<1500,000)	3,599	3,05

			CAP 1 TA (0	L PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Bollars in Thousands)							<b>∀</b>	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	earch &	Developmer	ję.					C. CADS 11 WORI	C. CADS 11 WORKSTATIONS REPLACEMENT	TIONS	LINE # A	LINE # AI4KL3701R	O.	D. NAUC-AD	
	110	FY 1993	13		FY 1994	7,0		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total
CADS II Workstations										-	3,000	3,000	-	3,261	3,261
TOTAL						1									

Narrative Justification: OPERATIONAL DAIE: June 1995 CADS II is a NAVAIR contract for procurement of Engineering workstations to standardize the workstations under NAVAIR control. The primary purpose of CADS II will be to increase the productivity of design engineers and improve the quality of electronic systems and documentation produced by the Navy. This capability will allow the Naval Air Warfare Center (NAWC) to be compatible with other NAVAIR facilities to allow concurrent engineering of systems. Also, these workstations will improve productivity of the NAWCAD design engineers by replacing existing systems with new tools which will greatly reduce the cost of producing microelectronic devices. The CADS II workstations will be procured over a period of four years, beginning in FY 1994.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.7 years Return on Investment (ROI) = 50% Average Annual Savings = \$5,023K

ECONOMIC ANALYSIS IMPACT:

If the CADS II design workstations are not procured, NAWCAD will continue using their existing, outdated DAISEY 80286 and BRAVO workstations. A labor savings of just under 1.3 million dollars will not be realized. NAWCAD will not be able to perform the new standards being set in the industry and the potential for losing valuable programs will exist.

			<b>CA</b> PITAL	PURCI of lars	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION nds)							₹.99	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmen	يد					C. LOCAL AREA REPLACEMENT	C. LOCAL AREA NETWORK (LAN) REPLACEMENT	JRK (L	AN)		D. N	D. NAWC-AD	
											LINE # A	LINE # AL3KL0001R			
	_	FY 1993	5		FY 1994			FY 1995	5		FY 1996	5		FY 1997	
4000 yo 400000 10	č		Total		Unit	Total		Unit	Total		unit	Total		Unit	Total
ביבוובור חו מפינ	3	rost	1807	2	Lost	LOST	È	COST	Cost	ά	COST	Cost	۵ţ	Cost	Cost
local Area Network (LAN)										-	1,000	1,000	-	1,000	1,000
		:	:		:						:				:
TOTAL	_										1,000	1,000		1,000	1,000

Narrative Justification: OPERATIONAL DATE: September 1995

communications, resource sharing, office a tomation productivity tools, and standard application software. The Command's ability to meet customer needs requires the ability to receive and process information and to utilize the benefits derived from the LAN. These benefits include time saved in communicating and transmitting documents, standard productivity tools for personnel, and the ability to share and transfer data. With the current (and continuing) environment of downsizing, this system will offer the required capability to share resources such as laser printers, plotters, and mass storage The system will provide wide devices. This will mean fewer fully equipped individual workstations, reduced personnel rework, and improved data transmission. This system is a broad fiber backbone cabling architecture for data, voice, security, and graphics for the entire Command. accomplished with fewer personnel resources only if work processes are automated and streamlined.

user community for these systems are quite broad and are increasing in numbers which will require the capability to connect with optimized performance. the communication links at NAWCAD Lakehurst are required because the site utilizes Cognizant Field Activity (CFA) and serves as a focal point for the Hierarchal Integrated Test Simulator (HITS) system software. The support systems and database management systems include the Operational Management System System System System System System System System (SIATS), etc.

of incompatibility or inter-operability with previously procured and installed systems. This will cause additional and unplanned expenses to shoe-horn fit old ways information flowed (orally, hand carried or floppy disks) has not yet been quantified. Because the LAN is a system its effect on the Command is dependent upon its completion. Anticipated total savings of \$6 million will be unattainable unless we are allowed to continue to pursue implementation of this information system. Delays endanger our ability to pickup where we left off because technological changes and advancements increase the possibility IMPACT: To halt the installation, leaving partially installed local organization networks, incomplete equipment configuration, and insufficient software risks will cripple the way we do business and it will cause us to backtrack and recoup with stand alone systems and islands of information. The cost of the effort invested so far will be considered wasted, equipment purchased will not be fully utilized, and the rework involved in returning to some of the dissimilar systems into our current configuration.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2 years Return on Investment (ROI) = 44% Average Annual Savings = \$2,553K

			CAPITA	L PURCH	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	(Dollars in Thousands)							A. 8 8	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	sarch	& Developme	ıt.					C. COMMUNICATI REPLACEMENT	C. COMMUNICATIONS SYSTEM UPGRADE REPLACEMENT LINE #	SYSTEM	UPGRADE	PGRADE LINE # WC3TL0084R	2	D. NAWC-WD	
		FY 1993	93		FY 1994	7,4		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	۵ty	Unit Cost	Total Cost	0ty	Unit Cost	fotat Cost	aty	Unit	Total	ot,	Unit	Total Cost	<u>\$</u>	Unit	Total
Hardware										-	1.690	1.690		1 600	1 690
Software					_					-	130	130	_	160	140
Installation										-	5	100		100	3 5
Other														}	}
													·		
TOTAL		1 1 2 5 6									•••••				

Narrative Justification: OPERATIONAL DATE: Continuous DESCRIPTION: This procurement will provide upgraded hardware for use system wide and for addition of capabilities in certain portions of NAWC China Lake's corporate communication system. The hardware is typically in the form of bridges, gateways, routers and network management systems. These are used to existing service. The upgrades are needed to make the system compatible with user computer and communication requirements or with network management requirements. Currently upgrades are needed to provide additional bandwidth and data speeds to allow the science and engineering community to utilize high performance networked workstations, to downsize from mainframes to distributed high power workstations, to distribute video, and to comply with project directives mandating the use of an engineering data distribution, storage and processing. All of these processing modes assume the existence of a robust communications foundation and architecture with high speed links to other sites nationwide. replace failed and obsolete units in the existing system, to extend the system to buildings not currently served, or to upgrade the capabilities of

The communications systems supported by this project are essential elements to the productivity requirements of doing more scientific and engineering work with fewer personnel who need to work in an integrated fashion but who are geographically spread around this site and the country as a whole.

inadequate performance. Productivity will be severely impacted. The network has already begun to show signs of inadequacy, slow response times, failing applications from lack of memory, and denial of services. Repairs and trouble calls have increased. If the bridge to isolate a segment of the ethernet is not purchased, congestion will occur as more computers are added to the network. If the network is not upgraded, NAWC China Lake will be plagued by operating in an environment of outdated technology which spawns inefficiencies and

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.8 years Return on Investment (ROI) = 47% Internal Rate of Return = 41% Average Annual Savings = \$3,317K

4 15 60
75 1 75 50 1 50
50 1 50 50 1 50
55 1 75 50 1 50 50 1 50

Narrative Justification OPERATIONAL DATE: May 1995 DESCRIPTION: The workstation interface cards are required to provide network connectivity for new users and to replace obsolete or failing equipment. vetwork connectivity allows sharing of documents, electronic mail, and very fast transfer of data.

Command-Local Area Network (C-LAN) RF components and the bridges and routers are required to replace existing equipment and add new connectivity. All bridges and routers are managed from a central location (the NCC- Network Control Center).

The current NCC needs improvements to be able to effectively monitor and if possible repair C-LAN network components. Additionally, a test setup is being designed and built so that new hardware and software can be tested before use on C-LAN. This test bed will also be used for trouble shooting

In many places on the C-LAN, if the network goes down Model 2502 out of band monitoring bridges will be used to monitor and repair the network remotely. the ability to repair is lost because the network itself is used to transmit the commands.

the UPS (Uninteruptable Power Supply) is used to keep the network up during brief power failures and to allow organized shutdown in the event of a long

Without replacement parts, bridges and gateways, the existing network would begin failing piece by piece. The C-LAN network has become a critical communication tool for communication and data transfer between all NAMC sites. Therefore, the labor cost savings are a combination of productivity savings for users as well as decreased labor costs in network maintainability.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

term failure.

Payback Period = 3 years Return on Investment (ROI) = 30% Average Annual Savings = \$379K

			CAPITAI (D	L PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. 8	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	earch &	Devel opmer	Į.					C. COMPETITIVE REPLACEMENT	C. COMPETITIVE ENGR.ENVIRONMENT REPLACEMENT LINE	R.ENVI	RONMENT LINE # W	NMENT LINE # WC4KL0401R	N	D. NAWC-WD	
		FY 1993	5		FY 1994	7,		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	oty	Unit Cost	Total Cost	0tv	Unit	Total	010	Unit	Total	<b>2</b>	Unit	Total	2	Unit	Total
Hardware										-	105	105	-	107	107
Software			-								82	82	-	118	118
Installation	_							×-					-	51	51
Other															
	_	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			:			;						:	
TOTAL							_				187	187		276	37.6

Narrative Justification: OPERATIONAL DATE: December 1995

more efficient tools for personnel. These tools will provide the capability for such things as Department wide inventories, databases and eventually real-time data gathering. These tools will become increasingly important as we address the increased emphasis on safety and the protecting of our environment. four year period, beginning in FY 1994. The goal of this procurement is to continue to increase the availability of this working environment to department The enhancement of the Competitive Engineering Environment will provide better communications both inside and outside the department and will provide new, performing the following specific items: (1) Expansion of the network to include outlying buildings not yet networked; (2)an electronic library; (3) User DESCRIPTION: The Competitive Engineering Environment consists of numerous workstations, personal computers, file servers, computer peripherals, software, The use of this environment has already resulted in Sheets, hazardous waste accumulation tracking, and Standard Operating Procedures (SOP). Another goal is the eventual ability to provide computer control and data bases connected via a network infrastructure and scattered organizationally throughout the Department. This procurement will take place over a development process by reducing trial and error testing, and reduce the cost of prototype hardware. The addition of the specifications and standards on These enhanced capabilities will provide continuous improvement in mission areas and will ultimately lower administrative and project costs and increase documentation for use of the network and network capabilities; (4) updating obsolete equipment; (5) implement a shared Application program & server; (6) the efficiency of the department's personnel. With today's military environment, it has become increasingly important to improve our ability to deliver Ordnance and Propulsion System using fewer personnel resources, fewer funds, and shorter schedules. The Competitive Engineering Environment provides The goal is for this environment to eventually provide the capability for Department wide databases such as explosive inventories, Material Safety Data personnel so that tasks can be accomplished in a more cost effective manner with improved accuracy. The use of this environment has already resulted better communication, increased savings, and improved product quality. The plan for FY 1995 is to enhance the Competitive Engineering Environment by administrator, allowing more time to be devoted to other aspects of the network. The addition of the modeling software and hydrocodes will enable to energetic material processing and evaluation. The addition of network monitoring software and hardware will reduce the workload of the network engineers and technicians to use state-of-the-art tools to visualize concepts, determine critical design and performance parameters, simplify the line will permit personnel to have access to current specifications in a timely manner without having to travel to other locations. modern and sophisticated tools with which to accomplish this. Upgrade Network Management hardware and software tools.

capability for NAWCWPNS personnel. If not expanded, this capability will be postponed causing the system to become obsolete and its usefulness to deteriorate. NAWCWPNS may be left in a position where compliance to increasingly difficult requirements will not be possible. NAWCWPNS will lose its ability to be leaders in the development and testing of systems using energetic materials.

This is based on the concept that planning for the future is better than crisis management and that continuous improvement is critical. The Competitive

Engineering Environment exists and is in use. Expanding this engineering environment to include additional features and capabilities will provide more

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH: Payback Period = 0.5 years

Return on Investment (ROI) = 46%

Average Annual Savings = \$495K beginning in FY96

			CAP1TA (0	L PURC	AL PURCHASES JUSTIFICATION Dollars in Thousands)	rification ands)							A.	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	arch &	Developmer	Į.					C. IMAGE SYSTEM REPLACEMENT	SYSTEM				D. N	D. NAWC-WD	
	-										LINE # IN	LINE # WC5KL0506R			
		FY 1993	23		FY 1994	7,		FY 1995	5		FY 1996	2		FY 1997	7
			Total		Unit	Total		Unit	Total		Unit	Total		Unit.	Total
Element of Cost	۲ <u>۲</u>	Cost	Cost	oty	Cost	Cost	Oty	Cost	Cost	aty	Cost	Cost	oty	Cost	Cost
Hardware	-									1	7.27	727	-	727	727
Software										_	079	640			777
Installation										. ,			. ,	2	9
										_	040	0,7	_	40	07
Other										-	94	94	_	95	95
			:									:			:
TOTAL	$\parallel$										1,200	1,200		1,200	1,200

Narrative Justification: OPERATIONAL DATE: January 1996

optical character recognition (OCR), (8) barcode recognition, (9) content based document retrieval, (10) support for engineering/technical documents, (11) fax input/output support, (12) computer output to laser disk, (13) support for Microsoft Windows, X-Windows, Macintosh, and OS/2 client workstations, (14) paper-based business documents. The goal of this system and project is to provide a common NAWCWPNS solution to replacing paper-based business documents. The proposed system will provide (1) UNIX-based application servers, (2) client-server processing environment, (3) modifiable workflow capabilities, (4) interoperability with proposed and selected NAWCWPNS office automation tools, (5) graphical user interface, (6) end-user and system administration, (7) The proposed Image System consists of a suite of open-architecture software products that provide an electronic alternative to conventional, adherence to industry standards, and (15) scalable network topology. DESCRIPTION:

managing, transferring, tracking and storing paper-based documents. The proposed system is expected to electronically replace the paper and also assist in The proposed system will be procured over a four year period, beginning in FY 1995, and is expected to benefit NAWCWPNS by providing an alternative means of handling up to 95% of the information that is currently paper-based. The present system is paper-based and is deficient to the extent of printing, the process of dealing with the information on the paper.

exchange/sharing of information, and the NAWCWPNS will continue to incur the cost of dealing with paper. The expected benefits of this system include; increased efficiency form processing the electronic information using various automated tools; reutilizing floor space that was once used for storing paper; common NAWCWPNS image system solution; increased information search capability and greater exchange of information. not procured, individual codes will pursue their own image system solution as opposed to a NAWCWPNS solution, individual solutions may inhibit

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.5 years Return on Investment (ROI) = 22% Average Annual Savings = \$773K beginning in FY96

			CAPITAL (0	PURCH oflars	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	arch &	Jevel opmen	ı,					C. Reconfigural REPLACEMENT	igurable ( EMENT	Crew S	C. Reconfigurable Crew Station Upgrade REPLACEMENT LINE # AW5KL6205R	5205R	D. NAWC-AD	IC-AD	
	1 1	FY 1993	3		FY 1994	31		FY 1995	55		FY 1996			FY 1997	_
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total
Reconfigurable Crew Stations Upgrade										-	254	254			
LATOT						1						730	-		

OPERATIONAL DATE: October 1996

etc.; one Silicon graphics Indy system and peripherals; and system integration (installation) labor. The FY96 purchase would include five Silicon Graphics The total procurement would consist of a network of Silicon graphics based computers to replace and upgrade those currently in the fixed-base Reconfiguragle Crewstation (RC) simulator. The requested items would be procured in two phases over fiscal years (FY) 95 and 96. The FY95 purchase would include a Silicon Graphics Onyx Reality Engine System, including all required operating systems, memory, disk drives, tape backups, other net connections, Indy Systems and peripherals, as well as system integration labor. These Indy Systems would utilize software developed using the components purchased in

simulators such as the Dynamic Flight Simulator (DFS). The DFS is in the process of moving to a Silicon Graphics based architecture. By having both the RC and DFS using the same architecture, the net productivity can be expected to increase for both simulators, and the development costs for individual projects will drop significantly. Further, the commonality in software and hardware will increase reliability and decrease maintenance costs because The RC was conceived as a low cost human factors research and development platform in which projects deemed feasible could be moved into higher fidelity hardware can be shared in the event of equipment failure, and the same support personnel can be used for both simulators.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period

Return on Investment (ROI) = 30%Average Annual Savings

Economic Analysis Impact:

the very near future. NAWCAD will lose its leadership in advanced automation technology because it will not have the necessary tools available to evaluate The RC will become an increasingly expensive, unreliable and obsolete tool for research if it is not updated and made compatible with other simulators in this technology. Specifically, NAWCADWAR and Wright Labs are currently performing cooperative research to develop demonstration hardware to drive an adaptive automation system. The simulator which will host this demonstration will be a Silicon Graphics based system at Wright Laboratories. simulator is available at NAWCAD to incorporate this demonstration.

A. FY 1996/1997 BIENNIAL BUDGET	C. Optical Disk Archiving System Replacement 11NE # A15K16102P	FY 1996 FY 1997	Unit Total Unit Total		
	Optical Disk A Replacement	FY 1995	Total		
	C. Opt Rep	F	Unit y Cost		
8		-	aty		:
sands)		76	Total Cost		f 1 1
AL PURCHASES JUSTIFICATION (Dollars in Thousands)		FY 1994	Unit Cost		: : : :
L PURC			aty		
CAPITAI (0	¥	3	Total Cost		
	Developmen	FY 1993	Unit Cost		1
	es Ch		aty		
	B. Department of the Navy/Research & Development		Element of Cost	Optical Disk Archiving System	TOTAL

Narrative Justification:

OPERATIONAL DATE: March 1995

The Epoch Optical Disk Archival System will be procured over a two year period beginning in FY 1995. It will provide automatic management to a user/group who has several gigabytes of data. It will provide reliable, timely, accurate, and valuable corporate archival system resources. This system will provide increased optical disk storage, and enhanced backups due to faster cpu. Automatic daily backup will reduce cost of re-entering lost

The current system cannot perform data backups in a timely manner due to a limited memory, the tape drive, and limited magnetic disk space. The current process places files on magnetic disk and later migrates them to optical disk. Each time files are accessed they must be returned to magnetic disk. During backup the system has to constantly migrate data to/from magnetic disk in order to do the backup. At the same time the system must migrate any data that the user accesses to optical disk. This is a time consuming process (approx. 18 hrs per 2 GB tape). The cost of floppy disks, tapes, and magnetic tapes are estimated at a cost of \$125,000 per year.

# COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.9 year Return on Investment (ROI) = 45% Average Annual Savings = \$254K

# ECONOMIC ANALYSIS IMPACT:

NAWCAD depends heavily on ADP computer resources to accomplish its mission, involving research, engineering, manufacturing, quality assurance applications, computer aided design, etc. Current users are now being turned away because file sizes exceed 300MB. Future demands are increasing for optical disk storage and timely system performance. Workload projections support the need for reliable, timely, accurate and valuable archival system resources to the general user community.

			CAPITA (D	L PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F. B. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Mavy/Research & Development	rch &	Developmer	Į.					C. TAC-4 and A REPLACEMENT	and AFMSS EMENT	Missi	C. TAC-4 and AFMSS Mission Planning System REPLACEMENT LINE # AW5KL7E03R		D. NAWC-AD	WC-AD	
		FY 1993	73		FY 1994	74		FY 1995	ž		FY 1996			FY 1997	
Element of Cost	Oty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	oty	Unit Cost	Total Cost	ot,	Unit	Total
TAC-4 and AFMSS Mission Planning System										-	150	150	-	150	150
TOTAL			:						:						

Narrative Justification: OPERATIONAL DATE: May 1995 The IAC-4 and AFMSS Mission Planning System will be procured over a three year period, beginning in FY 1995. The Tactical Advanced Computer-4 (IAC-4) represents the 4th generation of the Navy's program for use of commercial computers to fulfill many of the requirements for shipboard and shorebased computing. In addition to the IAC-4 system, the IAMPS project plans to acquire an Air Force Mission Support System (AFMSS) computer. The IAMPS project personnel will perform the mission planning capabilities comparison between TAMPS and AFMSS to determine whether either system will provide the capabilities required for both the Navy and Air Force. The TAC-4 system will provide significantly increased processing power. The AFMSS system will provide the means to evaluate the Air Force Mission Planning capabilities which requires different hardware than the current TAMPS hardware.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.7 years Return on Investment (ROI) = 33% Average Annual Savings = \$216K

Economic Analysis Impact:

Non-procurement of this system will result in failure to perform the future work assignment as the System Software Design Activity (SSDA) for the TAMPS project. These TAC computers are used in the Fleet and it is imperative that the labs be equipped with the same computers.

			CAPITAL (Do	_	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. F.Y	A. FY 1996/1997 BIENNIAL BIDGET	
B. Department of the Navy/Research & Development	rch &	<b>Developmen</b>	<b>4</b>					C. Unix Corpora Expansion Replacement	C. Unix Corporate Server Environment Expansion Replacement	erver	Environme	nvirorment	D. NA	D. NAWC-AD	
		FY 1993	3		FY 1994	4		FY 1995	5		FY 1996	6		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	۵ty	Unit Cost	fotal Cost	Q t y	Unit Cost	Total Cost	۵ty	Unit Cost	Total Cost	aty	Unit	Total Cost
Unix Corporate Server Environment Expansion						*				<b>-</b> -	250	250	-	150	150
,			-												
TOTAL		, , ,				( ( ( ( (					250	250		150	150

Narrative Justification: Operational Date: March 1995 The purchase will consist of a 32-bit Reduced Instruction Set Computing (RISC) based Portable Operating Systems Information Exchange (POSIX) compliant Unix In addition, software would allow individual servers to be installed at the directorates and activities as local application or file servers. The systems will comply with open system standards and will allow fiber network connectivity. The minimum hardware and software requirements include a uni-processor computer platform, local tape backup, optical and magnetic disk storage, POSIX compliant operating system, and Ethernet and FDDI network connectivity. In addition there will be a requirement for off-the-shelf database and business analysis software. The UNIX Corporate Server Environment Expansion will be procured over a period of three years, beginning in FY 1995. computer processing systems to expand FIEG's corporate data server capabilities to a distributed, controlled environment. This additional hardware and

The most significant unquantifiable benefit will be the high availability and timeliness of information for the Patuxent River engineer and manager. With distributed application servers, personnel can access one system or a network of systems to gather general information or aviation specific information.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 0.4 year Return on Investment: 215%

Return on Investment: 215% Average Annual Savings: \$1,487K

Economic Analysis Impact:

With the anticipated growth of the Patuxent River aviation community, it is evident that not only will the Computer Sciences Directorate be impacted by not current system can support up to 64 users. With the influx of personnel to Patuxent River, the best solution is to distribute the application processing across the base and take advantage of the large communications network currently in place. Without additional servers, the current servers will become so bogged down that customers will have slow response time and turnaround when trying to meet their project deadlines. investing in an open, distributed processing environment, but all FIEG activities will be impacted, including those from Trenton and Warminster. The

			CAPITAI (D	L PURCI	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TFICATION ands)							A. FY BII BUI	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	earch &	Devel opmer	יר					C. NAWCWE REPLAC	C. NAWCWD DEOF SYSTEM REPLACEMENT	E.	LINE # WC5KL0510R	KL0510R	D. NAWC-UD	G-1-0-1	
		FY 1993	33		FY 1994	7		FY 1995	35		FY 1996			FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total
Hardware													-	75	£
Software															
Installation Other															
		:									:			; }	;

Narrative Justification: OPERATIONAL DATE: July 1996

Phase 11 in FY97 will replace the remaining obsolete computers which will be 5-7 years old. This system performs NAWGWD Defense Business Operations Fund (DBOF) financial and management services; maintains corporate database for costing, Navy Stock Fund financial records and subsidiary financial records; audits financial reports; prepares reimbursable orders and amendments; and develops and implements NAWCWD accounting policies and procedures. An Phase I in FY95 will replace obsolete computers which are 6-8 years old. additional two printers are required to augment the current two printers serving 40 users. DESCRIPTION: This is a two-phase hardware replacement/upgrade acquisition.

Due to increased usage, these machines are unable to handle the workload and, consequently, are constantly being repaired on a weekly basis. All these machines are at least 6 years old, the memory and speed of the machines are unable to keep up with the increased workload or handle the advanced software applications needed to meet additional reporting requirements. With the additional financial operational requirements at the multiple NAWCWD sites, these machines are costing more for repairs and are unable to meet the output requirement of additional headquarter's tasking, which cannot be responded to in a timely manner. If this system upgrade is not implemented, equipment maintenance will dramatically increase in cost, and possibly additional shifts will be required to process the workload increase. This increase burden on the hardware will result in increased equipment breakdowns to the point where some work stoppage could occur. One alternative would be to contract out the work at a yearly cost of \$840K. A second alternative could be a lease-to-purchase of the needed equipment. This would cost in excess of three times that of buying the equipment outright.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4 years Return on Investment (ROI) = 24% Average Annual Savings = \$50K beginning in FY96

			CAP 1 TA	L PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F.	A. FY 1996/1997 BIENNIAL	,
B. Department of the Navy/Research & Development	arch &	Devel opmen	ı,					C. SECURE NETWORK REPLACEMENT	NETWORK				D. N	BUDGET D. NAWC-WD	
	-						7				LINE # 14	LINE # WC5TL0512R			
	+	FY 1993	2		FY 1994	2		FY 1995	ř.		FY 1996	~		FY 1007	
Element of Cost	Oty	Unit Cost	Total Cost	0ty	Unit	Total Cost	20	Unit	Total	2	Unit	Total		Unit	
Hardware										<u>;</u>	1603	1807	ξ,	Cost	Cost
Software										-	8	9	_	80	80
Installation										_	895	85			
Other												Į.			
TOTAL		:									:				
	-										145	145		80	80

Narrative Justification: OPERATIONAL DATE: May 1995 DESCRIPTION: Acquisition of file server/host to be situated in the Advanced Technology Support Program Office, building 31598, connected via secure data devices and phone lines to satellite offices on and off the center. Also required is a mass storage backup unit and software (C2 Unix operating system) to go with the acquisition of file server/host. The secure network will link 30-60 facilities that perform classified work. Currently each space, at most, processes in a stand alone mode of operation. This network will allow communication from the corporate office to each satellite, as well as allow communication between satellites on a need-to-know basis.

If not approved, continued use of at least one, often two, cleared personnel to hand-carry double wrapped classified information will be necessary. Security risks will continue to exist when classified information is taken outside an approved facility. Manhours lost due to personnel having to courier material is an expense which can be mitigated by the incorporation and funding of this secure network project.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.5 years
Return on Investment (ROI) = 27%
Internal Rate of Return = 12%
Average Annual Savings = \$92k beginning in FY96

			CAPITA	L PURCI	(Action Thousands)	IFICATION ands)							A.	A. FY 1996/1997 BIENNIAL BUDGET	1
B. Department of the Navy/Research & Development	earch &	Developmen	ير					C. NAWCWD CORPORENT	C. NAWCWD CORPORATE BUDGET SYSTEM REPLACEMENT LINE # 1	E BUDG	ET SYSTEM LINE # WC	SYSTEM LINE # WC5KL0511R	D. N	D. NAUC-WD	
		FY 1993	3		FY 1994	7		FY 1995	3		FY 1996			FY 1997	2
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty	Unit Cost	Total Cost	Qty	Unit	Total Cost	aty	Unit	Total
Hardware										-	05	50		45	45
Software															
Installation															
Other													**. **		
		1 1 2 4 1	***************************************	·····	:	1			:		1				
TOTAL											S	20		57	57

Narrative Justification: OPERATIONAL DATE: July 1996

department personnel so that tasks can be accomplished in a more cost-effective, efficient manner with improved accuracy. This is a three-phase operation working environment consists of DOS and Macintosh based computers, filer servers, computer peripherals, software, and data bases connected via a network DESCRIPTION: The NAWCWD Corporate Budget provides planning expertise and guidance to NAWC Headquarters, NAVAIR, and Weapons Division Management. The infrastructure located in the Comptroller Department. This system upgrade will continue to increase the availability of this working environment to which will begin in FY95 and will upgrade computers between the age of 6 and 8 years. Phase 11 and 111 will complete the system upgrade.

maintained on a NAMCMD wide data base for centralized financial planning, budgeting and reporting. These functions include Defense Business Operations Fund (DBOF) A-11 and operating Budgets, Stabilized and Non-Stabilized Billing Rates to all NAMCMD customer programs, Civilian Manpower Budget, Information Technology (II) Budget, Capital Purchases Program (CPP), and Financial Issue and Point papers. Approximately twenty-four NAWCWD personnel support the Corporate Budget supports the ongoing mission of gathering, assimilating, preparing and presenting NAWCWD-level financial program plans and budgets The augmented resources of the NAWCWD Corporate Budget will provide extended capabilities and increased communication both inside and outside the Comptroller Department. The continued objective is to respond in a timely and efficient manner to higher-level internal and external management. Corporate Budget function. Without upgrading the matured DOS and Macintosh based computers, file servers, computer peripherals, software and data bases, NANCWD Corporate Budget will be unable to maintain its ability to facilitate these programs and respond in a timely manner to internal and external special reporting. Current computer systems have inadequate memory capacity and cannot support current sofware applications. With its Computer resources limited and its human resources downsized, Corporate Budget may be left in a position where it will be unable to comply with the ever-increasing difficult and expanding requirements. Without the computer equipment upgrades, Corporate Budget will have limited ability to provide timely, accurate quality reports.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.8 years Return on Investment (ROI) = 21%

Average Annual Savings = \$43K beginning in FY96

			CAPITA (D	L PURC	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. F. 81	A. FY 1996/1997 BIENNIAL BUDGET	7
<ol> <li>B. Department of the Navy/Research &amp; Development</li> </ol>	arch &	Developmen	يد					C. EDMICS REPLAC	C. EDMICS REPLACEMENT (MANDATED)	DATED	1	11NE # UP6K14,002R	D. R	D. NAWC-WD	
		FY 1993	3		FY 1994	7		FY 1995	5		FY 1996	2,		FY 1997	_
Element of Cost	aty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	aty	Unit Cost	Total	o t	Unit Cost	Total	<u>}</u>	Unit	Total
EDMICS Equipment										-	2,925	2,925			
TOTAL								-			2,925	2,925			

Narrative Justification: OPERATIONAL DATE: October 1997

data for all new Weapons systems to be delivered by the contractor to the Department of the Navy in digital form. The objective of EDMICS is to meet the demand for engineering data through greater efficiency while significantly improving response time for both logistics and procurement support. DESCRIPTION: In September of 1985, the Secretary of the Navy introduced a strategy for developing an electronic acquisition and logistics infrastructure It will for the future. Computer-Aided Acquisition and Logistics Support (CALS) encompasses many advancements already used in industry. The Engineering Data Management Information and Control System (EDMICS) is one of the CALS modules. EDMICS is a digital system to automate engineering repositories. It will provide electronic capture, interchange, and distribution of engineering data and information about that data. EDMICS will support the acquisition, storage, retrieval, and dissemination of logistics technical information in digital form for major weapons systems. The need for EDMICS is driven by several factors: (a) the need to improve the management of technical information; (b) the increased accuracy, timeliness, and use of logistics technical development of highly complex weapon systems and equipment; and (e) the availability of new technology for high volume storage and retrieval of digital information; (c) the increased emphasis on competitive acquisition of spare parts; (d) the growing quantity of engineering drawings as a result of the

EDMICS will support Navy air launched weapons systems. NAWCAD performs procurement and logistics support for these weapons.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback period = 1.7 years Return on Investment (ROI) = 52% Average Annual Savings = \$1,516K

			CAP I TAI	L PURC	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. B. F. B. B. B. B. B. B. B. B. B. B. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	4
B. Department of the Navy/Research & Development	arch & I	Developmen	t t					C. JCALS Suites Replacement	JCALS Suites Replacement		LINE # Al	LINE # AIGKL7203R	D. NA	D. NAVC-AD	
		FY 1993	93		FY 1994	7		FY 1995	2		FY 1996	5		FY 1997	1
Element of Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost
JCALS Suites										_	2,775	2,775			e .
TOTAL							-,				K7. C	2 775			

Narrative Justification: OPERATIONAL DATE: January 1998 Joint Continuous Acquisition and Life-Cycle Support (JCALS) is a DOD wide information system aimed at creating a digital environment which will support acquisition and logistics functional requirements, thus enabling streamlined life cycle management of weapons systems. Logistics support analysis automation, acquisition, procurement, and technical manual automation are the primary goals of JCALS.

The current work processing methods are very slow and cumbersome and create excess paper. In addition, NAWCAD Indianapolis must re-input data received from other facilities due to non-compatibility. Currently approximately 20,668 labor hours are spent annually managing and publishing documents. More than \$75,000 are spent each year on material storage

approximately 25% in the development of technical manuals alone. Savings are calculated against the estimated tabor hours to complete engineering data packages and technical manuals using current methods versus automated methods if JCALS is procured. Since JCALS is a DOD wide project, all data received from other facilities will be compatible with our own systems and will not be required to be re-input. If the JCALS is procured, the existing manual, and outdated methods will be replaced with automated ones. This will produce a labor savings of

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.3 year Return on Investment (ROI) = 38% Average Annual Savings = \$1,059K

JCALS is a DOD wide information support system and if it is not procured, NAWCAD Indianapolis will not be compatible within the DOD. Data received from other facilities will continue to be re-input in order for the data package to be utilized in the design/engineering process. ECONOMIC ANALYSIS IMPACT:

and related fees.

			CAPITAL (De		MAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASES JUSTIFICATION (lars in Thousands)							A R 89	A. FY 1996/1997 BIENNIAL BUDGET	_
B. Department of the Navy/Research & Development	arch &	Developmen	¥					C. CAD 11 REPLAC	CAD 11 REPLACEMENT (MANDATED)	POATED	ł	LINE # WP6KL4000R	N	D. NAWC-WD	
		FY 1993	73		FY 1994	5		FY 1995	5		FY 1996	5		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	ot,	Unit Cost	Total	٥ţ	Unit Cost	Total
CAD 11 Computer System Installation											1,335	1,335			
TOTAL	· · · ·				1			* * * * * * * * * * * * * * * * * * *			1,410	1,410			
Narrative lustification:															

Narrative Justification: OPERATIONAL DATE: October 1997 DESCRIPTION: Computer Aided Design (CAD) II uses microcomputer technology to automate the engineering design weapon system development process. Objectives of CAD II include: (a) improve reliability and supportability of weapon systems by the application of computer-aided technologies during weapon system development; (b) improve the quality and timeliness of logistics support; (c) automate the development, maintenance, and distribution of logistics support products; and (d) reduce the quantity of technical paperwork needed to develop, acquire, support, and maintain weapon systems.

Implementation of the CAD 11 contract will result in more efficient procurement of spares, more efficient maintenance of operating systems, and more effective logistics planning and management of weapons systems. CAD II will support Air-to-Air and Air-to-Ground missile systems, conventional ordnance, suspension and release systems. Failure to implement CAD II will result in the degradation of weapon system procurement, logistics support, and maintenance support for Navy weapons. Fleet readiness will also be negatively impacted.

NAWCWD will be unable to comply with the DoD mandate and will require increased manpower and funding to fulfill its mission on assigned weapon systems. Logistics documentation will be handled in a less efficient manner. Fleet support will be inadequate.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 0.3 years
Return on Investment (ROI) = 222%
Internal Rate of Return = 257%
Average Annual Savings = \$3,132K

B. Department of the Navy/Research & Development  Element of Cost Qty Cost Qty Cost Gost Cost Cost Cost Cost Cost Cost Cost C
ch & Develo
B. Department of the Navy/Research  Element of Cost at  Module Integrated Electronic Technical Manuals/Publications

Narrative Justification: OPERATIONAL DATE: October 1997

design, manufacturing, and support processes to a highly automated, integrated mode of operation. CALS focus is on the automation of weapon system technical information over the system life cycle. This includes part descriptions, specifications, and standards that the initial designer references; the DESCRIPTION: The Computer Aided Modules are required to comply with the DoD mandated strategy to effect the transition from the current paper intensive engineering drawings and product data used in design and manufacture; the information needed to guide people who operate the system in the field or who support and maintain it at all levels of the logistics support structure; the materials needed to train new operators/maintainers; and the information needed for reprocurement, manufacturing, modification, and feedback to industry for future designs.

implementing the CALS system has slipped more than three years. The contractors are delivering data packages and technical manuals that meet the CALS requirements. To access this data a system was purchased in FY92 to read the CALS electronic information. However, the complete system is required to be there are three major modules, the Digital Technical Manuals/Publications module is the third module of Computer. Aided Logistics System. The schedule for able to access the data base and maintain the data.

This purchase will provide increased efficiency in the procurement of spare parts, increased efficiency in maintenance of operating systems, and more effective logistics planning. The lack of digital electronic manual and drawing review and publishing will decrease reliability and accuracy of information.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.6 years Return on Investment(ROI) = 21% Average Annual Savings = \$222K

			CAPITAL (Do	· PURC	AL PURCHASES JUSTIFICA (Dollars in Thousands)	AL PURCHASES JUSTIFICATION (Dollars in Thousands)							4. F. 80 g	A. FY 1996/1997 BIENNIAL BINGET	
B. Department of the Navy/Research & Development	arch &	Developmen	ī					C. Gould RSX C Replacement	C. Gould RSX Computer/Interface Replacement	er/In	erface		D .	D. NAWC-AD	
	L	FY 1993	3		FY 1994	75		rv 100F	¥		LINE #AXOKLUUSUR	OKLUUSUR			
			1			1	$\int$	<u></u>			1930			FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	aty	Unit Cost	fotal Cost	Q tv	Unit	Fotat	2	Unit	Total
															2031
Gould RSX Computer/Interface										-	200	200			•
			-											1	
TOTAL											200	200			
Narrative Justification:															

The ENCORE RSX Computer will be used as the application processor at the Landing System Test Facility (LSTF) to provide the necessary processing capability to handle a large volume of instrumentation parameters from various sources at high data rates. This system provides the best interface with the present RTPS III system without breaking down the commonality link between the RTPS and LSTF-systems, and provides a cost effective long range upgrade for future applications. This system is basically a "eplacement and applications enhancement of the time shared applications capability presently performed on the LSTF GOULD 32/67 display host processor.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH: Return on Investment (ROI): 5%

Average Annual Savings: \$27K

# ECONOMIC ANALYSIS IMPACT:

and then conducting post data analysis with large delays and repeat of unnecessary flights. Development of analysis software will be by individual test programs and common usage of application and analysis programs will be lost. Large expenditures of funds will be made to develop and conduct the same type handle during landing system and aircraft program evaluations. This will require tests and analysis to be performed the old way by flying numerous times Without this capital investment to provide applications, the LSTF will be severely limited as to the number of parameters and data rates which it can of analysis on the individual programs.

The replacement of the existing computer will increase the capability of the LSTF to process a larger number of aircraft/landing system parameters at high data rates that is required for the future programs. This will improve the efficiency and effectiveness of the facility and its output to test/analyze

The new program initiatives of the SMATCALS, F18E/F ASTOVAL, and JAST projects will require an increase in the ability to integrate and conduct real time analysis of a large number of air and ground based parameters.

			CAPITAL	PURCH	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A.8	A. FY 1996/1997 BIENNIAL BUDGET	20
B. Department of the Navy/Research & Development	sarch &	Developmer	į.				13	C. LAN ar Logist Replac	nd Computer ics ement	r-Aide	C. LAN and Computer-Aided Acquisition & Logistics Replacement LINE # AX6KLO	Acquisition & LINE # AX6KL0017R		D. NAWC-AD	
		FY 1993	73		FY 1994	7		FY 1995	5.		FY 1996	5		FY 1997	_
Element of Cost	Oty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total
LAN and Computer-Aided Acquisition & Logistics										-	207	407	-	165	165
TOTAL						! ! ! !					405	407		165	165

Operational Date: July 1996 Narrative Justification:

Advanced with Microsoft Mail Solution and for compatibility with NAWCAD Lakehurst Macintosh system (site of competency level management). Additionally, it will provide Computer-aided Acquisition and Logistics Support (CALS) workstations with supporting software for three Patuxent River engineering/logistics sites (i.e. Propulsion, Platform Group, and Avionics Lab). CALS is a DOD initiative intended to improve acquisition and logistics functional processes relating to technical information. This capital investment will allow interface and use of digitized technical data delivered as a part of an acquisition contract. The competency area will use the system in the conduct of its TECHEVAL effort to assess the adequacy, accuracy, and completeness of technical Replacement of existing hardware and software for intraoffice network to accommodate the basewide change from 3Com network operation system to Windows NT documentation intended to support the equipment acquired.

CALS workstations will allow for a smooth and timely transition in the establishment of CALS capability necessary to support future mission requirements in This competency area will be compatible with the NAWCAD Patuxent site and with competency area management at NAWCAD Lakehurst; it will have intraoffice software compatibility and obtain the capability to stay current with the investment of network software vice individual workstation software; and it will have internal data communication and transfer capability between all its personnel located in three physically separated worksites in four buildings. The the conduct of IECHEVAL.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period:

Return on Investment:

Average Annual Savings:

			CAPITAL (Do		PURCHASES JUSTIFICATION	IFICATION inds)	6						A. FY BIE	A. FY 1996/1997 BIENNIAL RUDGET	
B. Department of the Navy/Research & Development	~ 다.	Developmen	ıt.					C. LAN and Com Logistics (1 Replacement	C. LAN and Computer-Aided Acquisition & Logistics (PAGE 2) Replacement	Aided	Acquisition &	on &	D. NAWC	ي	
		FY 1993	13		FY 1994			FY 1995	-		FY 1996	ON LOOP IN		FY 1997	
Element of Cost	۵ty	Unit Cost	Total Cost	Ωty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost G	oty	Unit Cost	Total Cost	۵ty	Unit	Total Cost
LAN and Computer-Aided Acquisition & Logistics															
TOTAL		1	1						:						

# Economic Analysis Impact:

will be unacceptable because 3Com name service is no longer available. This competency area will no longer be capable of updating workload or financial information; process IECHEVAL Rapid Action Deficiency Reports, TECHEVAL Interim, Preliminary and Final reports; update training and travel information; or accomplish intraoffice electronic communication. Lack of electronic compatibility with the competency management will cause inefficiency. A significant investment already made in automation will be negated by the lack of funding for conversion and updating. Since future technical data will be delivered in digitized form (no papar copies), this competency area will be unable to perform IECHEVAL on programs for which CALS requirements have been contractually rendered unusable. Personal computers/printers will not be usable because they do not have standalone software. The network software that is available As the NAWCAD Patuxent site converts to Wi∷dows NT Advanced with Microsoft Mail Solution, all equipment connected to the 3 Com operating systems will be implemented unless CALS workstations are acquired.

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			CAPITAI (0	L PURCI	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	1F1CATION ands)							A. F. BI	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmer	į.					C. Visual Replac	Visual Display Replacement	Test a	C. Visual Display Test and Simulation Sys Replacement LINE # AX6KL0013R	on Sys 6KL0013R	D. NA	D. NAWC-AD	
		FY 1993	73		FY 1994	7		FY 1995	75		FY 1996			FY 1997	
Element of Cost	0ty	Unit Cost	Total Cost	oty	Unit Cost	Total Cost	۵ty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost
Visual Display Test and Simulation System										-	380	380			
TOTAL								:				- Car		1	

Narrative Justification: Operational Date: April 1996

scenes (terrain) and simulations for interactive man-in-the-loop testing of helmet mounted and other advance display devices for tactical aircraft. It applies to the full range of topics referred to as virtual reality. It will enable us to drive display equipment in the Crewstation Technology Laboratory (CTL) at the full speed and update and refresh rates required by modern test methods which cannot be supported with current equipment. Test methods for helmet mounted displays are used in engineering development for naval aircraft of all types and also in training issues, distributed simulation, tactics development, and all types of human performance assessment in full or part mission simulation. Components include an SGI Onyx II RE computer, workstation, This procurement is an advanced graphics engineering workstation, with hardware and software, designed to support high speed video generation of flight and terrain software. The current system will only run rudimentary simulations and will never reach the level necessary to accomplish required goals. The new system is needed in order to be able to update computer/video generated flight scenes expediently to meet man-in-the-loop testing requirements. The visual display test and simulation system is a proven commercial product compatible with current equipment and networked simulations. It has growth potential for new applications and for a long useful life.

The upgrading of equipment and the availability of modern analysis tools and techniques provides an environment for excellence in accomplishing crew system simulations and visual display system T&E.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 6.4 years

Return on Investment: 17% Averge Annual Savings: \$64K

Economic Analysis Impact:

enhanced accomplishment of aircrew systems RDI&E tasks. If this procurement is not made, project delays and degraded project results will occur. The current system is old and incapable of meeting sponsor's interactive man-in-the-loop testing needs for helmet mounted visual displays/targeting systems. Planning for continuous improvement is critical. Expanding this engineering environment to include additional features and capabilities will permit The new system is desparately needed to meet program requirements.

		*		Total	cost	52				75
A. FY 1996/1997 BIENNIAL RIDGET	D. NAWC-WD		FY 1997	Unit	1803	7.2				
A. F.	D. N			2	;	_				
		LINE # WPOILSUU4R	9	Total	1603	026	5	3		370
		LINE # W	FY 1996	Unit	120	250	C L	3		370
				0 1	ŀ	-	-	•		
	GRADES		2	Total						1
	C. VTC UPGRADES REPLACEMENT	1	1995	Unit						
				0ty						
IFICATION ands)			,	Total Cost						
HASES JUST in Thous		rv 100/		Uni t Cost					==	
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				ot,						
CAPITAI (D	#	~		Total Cost						
	)evelopmen	FY 1003		Unit Cost						
	ch s	L		oty						
	B. Department of the Navy/Research & Development			Element of Cost	Equipment	Software	Installation	Other		TOTAL

Narrative Justification: OPERATIONAL DATE: April 1996

This capability includes cameras, monitors, video compress on equipment, and new network/operations connections to anticipated remote customers at Pt. Mugu sites.

Additional requirements are to enhance the operational capability of the High Resolution Graphics System. High resolution graphics provide the ability to scan, transmit, display and store text and complicated graphics; to interact with other users; and to produce high quality printed output. This capability DESCRIPTION: Since 1988, Pt. Mugu has documented Video Teleconferencing (VTC) cost savings by improved productivity and travel avoidance. This upgrade represents a long standing general requirement for Navy VTC installations.

portable VIC facility is already planned to help support current overflow requirements. Increased laboratory and operational connectivity (anticipated in FY94-95) will potentially double VIC demand in support of test/evaluation/training on Navy weapons development, improvement and production programs. Upgrade of this equipment is now due and would allow use of existing equipment as spares to lower maintenance support cost in the future. With decreasing travel and downsizing of personnel resources, modernization and expanded interface connectivity of the Pt. Mugu VTC is required to accommodate increasing demand for this facility to accomplish the Pt. Mugu Navy Mission in National Defense. The VTC is essentially 100% utilized at present, and an additional

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.8 years Return on Investment (ROI) = 48% Internal Rate of Return = 42% Average Annual Savings = \$212K

			CAPITA	L PURC	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F. B	A. FY 1996/1997 BIENNIAL BUDGET	۲.
8. Department of the Navy/Research & Development	arch &	Devel opmer	±					C. Signal REPLAC	C. Signal Processing Workstation REPLACEMENT LINE #	ng Wor	kstation LINE # A	tation LINE # AW6KL5304R	O.	D. NAWC-AD	
		FY 1993	33		FY 1994	7,0		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	ûty	Unit	Total Cost	aty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	at,	Unit	Total Cost
Signal Processing Workstation			÷					*		_	350	350			
TOTAL		;	1									: Cu			

Narrative Justification: OPERATIONAL DATE: January 1996 A self-contained roll-on/roll-off acoustic operator's workstation suitable for use on P-3 aircraft. The system will be ruggedized and be flight certified. It shall make maximum use of Commercial-Off-The-Shelf (COTS) technology and shall be easily programmable in a high order language to enable rapid prototyping of next generation signal processing algorithms. Major system components shall consist of the Signal Processing Computer, Display, and Operator Interface.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.9 years Return on Investment (ROI) = 46% Average Annual Savings = \$161K

Economic Analysis Impact:

If this system is not purchased this fiscal year, we will be unable to investigate prototype and experimental signal processing techniques, which would adversely affect current and future projects.

			CAPITAL (00		TAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASES JUSTIFICATION							A. FY	A. FY 1996/1997 BIENNIAL	_
B. Department of the Navy/Research & Development	arch &	Developmen	<u>با</u>					C. Sun Lab Net	C. Sun Lab Network				D. N.	BUDGET D. NAWC-AD	
	-										LINE # A	LINE # ALGKLOOOZR			
		FY 1993	3		FY 1994	7		FY 1995	2	L	1007				
		Unit	Total		Unit	Total		11011	1			и.		FY 1997	
Element of Cost	oty	Cost	Cost	aty	Cost	Cost	oty	Cost	Cost	o tv	Cost	Total	2	Unit See	Total
Sun Lab Netuck														1603	rost
										-	290	290			
												•			
TOTAL		:		-											
											200	200	_		

Narrative Justification: OPERATIONAL DATE: December 1996

The system will feature the integration of other advanced engineering information systems, such as silicon graphics for high speed performance graphical modeling and simulation applications to enhance their run time and throughput. It will also feature networking via the existing LAN which will provide engineering software packages from their own office spaces. Remote workstations provide high performance, high speed software operations in a laboratory environment.

Engineers currently use either personal computers or Sun workstations for software development in several R&D efforts. These efforts include finite element analysis, fuzzy logic for image processing, lab applications, test and supportability analysis, expert systems and artificial intelligence, and neural networks. The labor hours per engineer will be reduced to allow them more time for development of engineering applications and overall support of

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.9 year Return on Investment (R01) = 46%

Economic Analysis Impact:

Average Annual Savings

NAWCAD Lakehurst's ability to meet in-house software development requirements depends on replacing and upgrading the current capabilities in the R&D area.

			CAPITAI	L PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							R 8	A. FY 1996/1997 BIENNIAL BUDGET	<u>د</u>
B. Department of the Navy/Research & Development	earch &	Developmen	<u>,</u>					C. CONTII	CONTINUING TECH. REPLACEMENT	ADV.	C. CONTINUING TECH. ADVANCEMENT PHASE II REPLACEMENT LINE # WC5KL0509R	SE 11 5KL0509R	Z	D. NAWE-WD	
		FY 1993	ម្ចា		FY 1994	4		FY 1995	25		FY 1996			FY 1997	_
Element of Cost	Oty	Unit Cost	Total Cost	aty	Unit	Total Cost	Oty	Unit	Total Cost	aty	Unit	Total Cost	o tv	Unit	Total
Hardware										-	250	250			
Software		.,													
Installation															
Other															
100															

Narrative Justification: OPERATIONAL DATE: October 1996 DESCRIPTION: This procurement is to replace/upgrade obsolete equipment in the Procurement Department. By the end of the first quarter of fiscal year 1994, the workstation hardware currently owned by the Procurement department will be at least two processor levels behind the current state-of-the-art workstation equipment. In procuring these workstation upgrades, we will have up-to-date equipment which will be faster, more reliable units with more storage capacity and memory. The majority of equipment that the Procurement Department currently owns was purchased by NAVSUP for use with the Automation of Procurement and Data Entry (APADE). Given the state of the NAVSUP budget, it is highly unlikely that they would offer any more equipment in the near future. With shrinking overhead budgets, upgrades of the current equipment are not possible with in-house funding. The Procurement Department is trying to accomplish more work with less people, but if the department is forced to use outdated equipment, productivity will decrease and eventually, down time for workstation maintenance will increase to disproportionate levels.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4 years
Return on Investment (ROI) = 24%
Average Annual Savings = \$120K beginning in FY96

			<b>CAP</b> 11AI	L PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TFICATION ands)							A. F.	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	<del>م</del> 40	Developmer	t.					C. AAP-400 Pro REPLACEMENT	C. AAP-400 Processor REPLACEMENT	r			D. X	D. NAWC-AD	
											LINE # A	LINE # AWSKL5405R			
		FY 1993	73		FY 1994	7		FY 1995	Z		FY 1996	9		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	۵ty	Unit Cos <b>t</b>	Total	0ty	Unit Cost	Total	0 t	Unit	Total	2	Unit	Total
100 J. dan													-		
AAF-400 YI OCESSOI										-	250	250			
		:													:
TOTAL	_										250	250			

Narrative Justification: OPERATIONAL DATE: July 1996

The AAP-400 is an interactive roll-of active sonar received and display system used for Multi-Static Active (MSA) sonar processing and display. The AAP-400 provides operator controllable audio and visual displays to enable the system operator to quickly and effectively analyze data from up to 32 sensors simultaneously. The present method analyzing active sonar data is very labor and time intensive. Military equipment is very specialized and does not lend itself to scientific investigations. Also, the current capability for multi-sensor evaluations is limited.

Use of the AAP-400 System will reduce labor rates by a factor of four by effective utilization of this hardware. This unit will replace the Data General MV-15000 computer currently in use at the NAWCAD.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

= 3 years Return on Investment (ROI) = 30% Average Annual Savings = \$106K Average Annual Savings Payback Period

Economic Analysis Impact:

If this procurement is not made, data analysis will be inefficiently handled. Less capable and slower analysis tools will have to be utilized to meet sponsor needs.

			CAP1TAI (D	L PURC!	<pre>// TAL PURCHASES JUSTIFICATION (Dollars in Thousands)</pre>	IFICATION ands)							A. FY 81 8U	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	rch &	<b>Developmen</b>						C. System REPLAC	C. Systems Engr. Facility Update REPLACEMENT LINE #	scilit	y Update LINE # A	Update LINE # AW6KL1201R	D. NA	D. NAWC-AD	
		FY 1993	3		FY 1994	ę		FY 1995	5		FY 1996	5		FY 1997	_
Element of Cost	0ty	Unit	Total Cost	aty	Unit	Total	0ty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty	Unit Cost	Total
Systems Engr. Facility Update				_						-	250	250			
TOTAL												S u c	·		

Narrative Justification: OPERATIONAL DATE: September 1996 The Vertical Flight Systems Engineering Facility Upgrade will be comprised of a set of hardware and software that will enable the facility to be up to date with the current technological environment. As new advances in the software field emerges, the current equipment can no longer operate at an efficient level due to speed requirements and/or storage requirements of the new software. It is therefore necessary to update the hardware. The hardware will be state-of-the-art workstation systems that will be capable of executing the systems engineering and analysis tools of that time period. The hardware will also be able to transfer data and communicate with other networked workstations at the normal data transfer rates. The new software will be the latest advances in software engineering, and systems engineering and analysis tools. These software products will enable the cognizant engineer to be at a productivity level that maintains the competitive edge in the engineering arena at NAWCAD.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years Return on Investment (ROI) = 30% Average Annual Savings = \$76K

Economic Analysis Impact:

This Failure to obtain the Vertical Flight Systems Engineering facility Upgrade will allow other agencies and contractors to overtake our capabilities. would destroy the competitive edge and the engineers involved would no longer be up to date with the techniques, methodologies, and tools of their profession.

		CAP 1 TAL PU (Doll	CAPITAL PURCHASES JUSTIFICATION (Dollars in Millions)	USTIFICATI [[ions]	<b>5</b>					A. FY 1996/1997 BIENNIAL	6/1997 AL	
B. Department of the Navy/Research & Development	Developme	of J				C. H-3 and Var	d Variants EMENT	C. H-3 and Variants Simulation System REPLACEMENT		D. NAWC-AD	9	
								LINE # A	LINE # AWSKL1202R			
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	ot,	Unit Cost	fotal Cost	Oty	Unit	Total Cost	oty	Unit	fotal	>10	Unit	Total
H-3 and Variants Simulation System							•					
							-	250	250	:		
		:	:		:			250			:	

Narrative Justification: Operational Date: June 1996

modeling and system engineering and analysis, software in a life cycle support capacity for the H-3 helicopters and variants platforms. The H-3 variants consists of various Foreign Military Sales (FMS) versions of the aircraft. The H-3 and variants simulation system is an add-on capability for the Vertical Flight Division and is critical for obtaining future funding systems integration and testing of the H-3 FMS variants and assoicated avionic subsystems. Other qualitative justifications exists because the procurement of this hardware and software expands NAWC potential for obtaining future work Justification: The H.3 and Variants simulation system phase II consists of additional mini- and micro-computer based hardware required to execute system

Estimated Payback Period = 2 years Estimated ROI = 43%

= \$108K Average Annual Savings IMPACT STATEMENT: Failure to purchase this equipment would jeopardize the capability of NAWC to adequately perform future work for the H-3 and FMS program

		ļ	CAPITAL (De	PURCI	(Dollars in Thousands)	FAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F.Y	A. FY 1996/1997 BIEWNIAL BUDGET	7
B. Department of the Navy/Research & Development	rch &	<b>Developmen</b>	يد					C. Client REPLAC	C. Client Server Sparc System REPLACEMENT LIN	parc S	ystem LINE # AL	tem LINE # AW6KL5306R	D. NA	D. NAWC-AD	
		FY 1993	3		FY 1994	4		FY 1995	5.		FY 1996			FY 1997	_
Element of Cost	oty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty	Unit	Total Cost
Client Server Sparc System										-	211	211			
TOTAL									1						

Narrative Justification: OPERATIONAL DATE: January 1996 This system consists of one Sparcserver and three client workstations. The server is a Sparcsystem 1000 with four 50 MHZ Superspare processors to eight processors. Each client is a Sparcstation 10 with one 50 MHZ Superspare processor (expandable to four processors), and a color monitor. Also included in the system is 8 GBytes of mass storage, tape backups, a laser printer, and a color printer. The workstations include accelerated graphics and 16 bit stereo analog-to-digital (A/D), and will be used for sonar data visualization and detection/classification algorithm development. Software will include development tools and math/signal processing packages.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years Return on Investment (ROI) = 77% Average Annual Savings = \$161%

Economic Analysis Impact:

If these systems are not purchased in this fiscal year, delivery schedules on the development of signal processing algorithms and data processing for sponsors will be adversely affected.

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		÷	CAPITA (D	NL PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TIFICATION ands)	_						A. F.	A. FY 1996/1997 BIENNIAL	
B. Department of the Navy/Research & Development	arch &	Developme	jt.					C. GEOGRAPHIC REPLACEMENT	C. GEOGRAPHIC INFORMATION SYSTEM REPLACEMENT	RMAT 10	N SYSTEM		Q .X	D. NAWC-WD	
	-										LINE # N	LINE # WC5KL0517R			
	1	FY 1993	93		FY 1994	7,4		FY 1995	ž.		FY 1996	2		FY 1997	
Element of Cost	aty	Unit Cost	Total	ot.	Unit	Total	040	Unit	Total	ě	Unit	Total		Unit	1
Hardware									1603	<u>;</u>	T COST	rost	<u>}</u>	Cost	Cost
Coffware										-	60	ô	_	212	212
SOLUMBI E										-	82	82			
Installation															
Other										•	S	(			
										-	À.	ò			
10.00			:		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				:						1
IOIAL											206	206		212	212

Narrative Justification: OPERATIONAL DATE: September 1995

DESCRIPTION: This is an archival/retrieval system that focuses on relating facilities/real property textual data to mapping and design graphical data.
Various databases will be incorporated into the GIS including mapping, utilities, real estate, capital improvements, and environmental data. The Geographic Information System (GIS) will be compatible with Tri-Service Computer Aided Digital Design (CADD)/GIS technology. The system will allow for the transfer of spatial data between all Departments within the Tri-Service community as well as the adjacent local, state and federal agencies.

This system allows comprehensive planning (master planning); real estate management; hazardous waste management and other environmental program management; utilities management; training and testing operations; land and air space use compatibility; and installation restoration/closure. Disapproval of this request will have an initial detrimental impact on Public Works and the Environmental Project Office who will be the prime users of the initial phases of the GIS system. Disapproval will also have a negative effect on other potential users throughout the Station. As the expanded capabilities of the system are implemented, more impact will take place because the present system is antiquated and time consuming to use.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 years Return on Investment (ROI) = 63% Internal Rate of Return Payback Period

= \$390K beginning in FY96 Average Annual Savings

			CAPITAI (D	L PURCI	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. FY BI BU	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	earch & I	Devel opmen	ı,					C. Visual Syste REPLACEMENT	C. Visual System Upgrade REPLACEMENT	grade	LINE # Ah	LINE # AW6KL6506R	D. NAWC-AD	UC-AD	
		FY 1993	£.		FY 1994	•		FY 1995	5		FY 1996			FY 1997	
Element of Cost	aty	Unit	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total
Visual System Upgrade										-	200	200			
TOTAL								:			: 000				

Narrative Justification: OPERATIONAL DATE: August 1996 The new visual system for the Flight Dynamics Computer Lab (FDCL) would include a Silicon Graphics Crimson Computer, operating system, additional memory and peripherals, VisionWorks Database, and 3 monitors. This system upgrade will provide a wider field of view, with increased visual cueing capability to more effectively conduct pilot simulations. The current visual graphics system is outdated, in need of repair, and very limited in scope. The new system contains state-of-the-art computers with the necessary memory, input/output capabilities and software to provide the necessary outside world visual cues to conduct effective piloted simulations in the FDCL. The FDCL is an inexpensive, medium fidelity engineering simulator to conduct research, develop test module, and refine test matrices before transitioning to an expensive, high-fidelity simulator, if required.

The Flight Dynamics and Controls Branch has had very strong indications from its customers that a significant increase in rotorcraft flying qualities and controls support will be required in the future. The existing visual system, which is ten years old, has become obsolete and must be replaced if the branch and the FDCL are to continue to support this increasing rotorcraft work being requested by its customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years Return on Investment (ROI) = 30% Average Annual Savings = \$61K

Economic Analysis Impact:

required by its customers. This would result in significantly higher cost to those programs requiring simulation since a more expensive, higher fidelity facility would have to be used, even if the higher fidelity was not required. Without this improved visual display capability, the Flight Dynamics Computer Lab (FDCL) would be severely limited in supporting rotorcraft efforts

			CAPITA	L PURC	(Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY BII BUI	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	rch &	Developmen	ıt.					C. Advanced Cal REPLACEMENT	ed Capabil EMENT	ity A	C. Advanced Capability Arithmetic Processor D. NAWC-AD REPLACEMENT LINE # AMÓKI 7008R	thmetic Processor	D. NA	rc-AD	
	Ш	FY 1993	73		FY 1994	4		FY 1995	55	L	FY 1996	2		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total	at,	Unit	Total
Advanced Capability Arithmetic Processor			i				****			-	200	200			
TOTAL		:	!								200	200			

Narrative Justification: OPERATIONAL DATE: May 1996

new techniques, both hardware and software, with the goal being to integrate these new technologies into our present and future signal processors. The exact components and configuration of this system varies widely, depending on what type of system and which vendor supplies it. Because of the continuing advances being made in this area, the research into the type and vendor of the system is ongoing and will continue until the selection is made, immediately The Advanced Capability Arithmetic Processor is a state of the art, commercial off-the-shelf (COTS) signal processor system. It will be used to evaluate prior to purchase.

The state of the art in signal processing is advancing both in the software and hardware area. To stay current in this rapidly progressing technology area, we need to move forward with it. A commercial state of the art unit will enable us to evaluae these new technologies and incorporate parts of it into existing signal processing systems. Purchasing a COTS unit will result in a 25% savings over the present methods.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

rayback Period = 3.5 years Return on Investment (ROI) = 27%

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= \$53KAverage Annual Savings

Economic Analysis Impact:

employ UYS/2 as part of their architecture. If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 The present UYS/2 was originally conceived in the early 1980's. While continual product improvements and enhancements are taking place, new technological advancements dictate that it will be obsolete in a short number of years. But the modularity of the system make it possible to totally replace parts of the machine, provided the technology can be proven by some means. The equipment will support the UYS/2 project, and thus indirectly other projects which

		CAPITAL F	TAL PURCHASES JUSTIFICATION (Dollars in Millions)	USTIFICATI (Lions)	NO.	7				A. FY 1994/1995 BIENNIAL BUDGET	4/1995 AL	
B. Department of the Navy/Research & Development	& Developme	пt				C. Mini C REPLAC	C. Mini Crew Station REPLACEMENT	n LINE # AX6KL0085R	6KL0085R	D. NAWC-AD		
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
Mini Crew Station						λ.	-	200	200	ı		
	R	!	1			1		200	200			

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Narrative Justification: OPERATIONAL DATE: January 1996

JUSTIFICATION: This submission is for a planned two year effort at \$200K per year four Mini Crew Stations. The test facility will have four major components which consist of Flight Control Computer Iest Stations, computational resources, flight control computer interfaces, and piloted simulation stations. The Mini Crew Station flight simulators consist of operator controls, heads up and heads down displays, image generator, and aerodynamic model processors.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

= 1 year = 119% Payback Period Estimated ROI

= \$475KAverage Annual Savings

## **ECONOMIC ANALYSIS IMPACT:**

environmental conditions which, if performed during afficraft flight, could be hazardous, limited in scope, and subject to unpredictable atmospheric conditions. If this project is deferred it would force the test and evaluation of new technology systems not to be conducted or, if conducted, it would high risk, high cost flight test evaluation. The ability to accurately interface with the digital flight control system and control simulated aircraft conditions allows for precise replication of flight conditions which will reduce risk to the aircraw. Working under the current laboratory limitations, the total system capabilities cannot be fully exercised and a complete evaluation of the resulting system performance cannot be assessed until actual only partially evaluate the operational capabilities of these systems. The tests that cannot be performed on the ground will have to be performed in a The development of these capabilities are required to allow the test and evaluation of new technology systems in the laboratory under controlled flight tests.

		-	-								
_					Cost	77	,				11
A. FY 1996/1997 BIENNIAL BUDGET	D. NAWC-WD		FY 1997	Unit	Cost	12					22
A 7 8 8	D. N				Ž,	_					
		LINE # WP6TL5005R	9	Total	1802	103	54	20	S.		))
		LINE # W	FY 1996	Unit	1902	103	24	20	2		) ) I
	LAN			2	;		-	-	•		
	C. CONNECTIVITY/HR LAN REPLACEMENT		75	Total	1502						
	C. CONNEC		FY 1995	Unit							
				ot^							
IFICATION ands)			7	Total Cost							
TAL PURCHASES JUSTIFICATION (Dollars in Thousands)			FY 1994	Unit							
PURC				۵ty							
CAPI	¥		35	Total Cost							
	Developmer		FY 1993	Unit Cost							
	rch &	L		Ωty							
	B. Department of the Navy/Research & Development			Element of Cost	Equipment			Installation	Other	TOTAL	

Narrative Justification: OPERATIONAL DATE: March 1996 DESCRIPTION: This procurement is for network servers, bridges and routers, communications servers, and communications software and protocols. As a service department supporting all manpower and all civilian personnel functions, with primary offices located at Pt. Mugu and China Lake, it is imperative to provide the ability to expand communication and to transmit resource information to the Codes at both sites. It is our on-going plan to standardize equipment and software throughout the department to allow for more accurate and timely information processing and sharing, increase productivity, and reduce the cost of maintaining equipment. Efficiency in operations and services will be significantly impacted. Information and resource sharing will be adversely effected. For example, personnel data bases that could be located at either site with multi-site access would have to be duplicated. This would increase the hardware/software requirement as well as the personnel resources required to maintain and manage the system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.6 years Return on Investment (ROI) = 21% Average Annual Savings = \$54K

			CAPITA	ottars	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	rrficATION ands)							A. FY BB	A. FY 1996/1997 BIENNIAL BUDGET	<b>.</b>
B. Department of the Navy/Research & Development	earch &	Developmer	بر بر					C. Processo E Replacement	C. Processor Expansion Replacement	sion	LINE # A	LINE # AIGKL6104R	D. NA	D. NAWC-AD	
		FY 1993	73		FY 1994	7		FY 1995	5		FY 1996	9		FY 1997	7
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total
Processor Expansion										-	157	157			
TOTAL		1 1 1 1									157	751			

Narrative Justification: OPERATIONAL DATE: April 1996 This project is to expand the Material Management System Tandem Computer from six central processing units (CPUs) to eight. This is required to support the use of Oracle database software on the Material Management Information System (MMIS). This will permit the Tandem system and the Distributed Corporate Computing Facility (DCCF) VAX to transfer files without imposing severe constraints on the type and structure of the data.

the necessity of training personnel on proprietary software and the special-purpose programs to restructure data into an FTP compatible format. The use of Oracle is expected to provide a 10% decrease in the time spent manipulating the current proprietary software. The team will have 1400 hours (10% of the teams annual lebor hours) per year to dedicate towards backlogs or development in other applications. database software such as Oracle for computer software development reduces NAWCAD Indianapolis dependence on proprietary software systems. For this reason, Oracle has been selected as the standard database software on the DCCF VAX computers. Using Oracle on the Tandem computer would enable software running on either the DCCF or the Tandem to access data on either machine, without regard to the actual physical locations of the data. This eliminates The procurement of the Processor Expansion will enable the Tandem computer to support the use of Oracle database software. The use of standardized

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year Return on Investment (ROI) = 36% Average Annual Savings = \$56K

ECONOMIC ANALYSIS IMPACT:

Oracle requires substantial amounts of central processor time. If the expansion is not funded, installing Oracle on the Tandem computer will degrade the systems performance to unacceptable levels. Failure to install and use Oracle for software development will result in the loss of benefits described and continue reliance on costly proprietary operating systems.

			CAP1TAI (D	L PURC	AL PURCHASES JUSTIFICATION Dollars in Thousands)	[F[CATION inds)							.₹ .₹ 8.88	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	arch &	Developmer	¥					C. AIR-TO-SURF	-SURFACE I	MAGE	C. AIR-TO-SURFACE IMAGE PROCESSING-C28 REPLACEMENT	-c28	Ž.	D. NAWC-WD	
											LINE # W	LINE # WC6KL0519R			
	1	FY 1993	2		FY 1994	•		FY 1995	5		FY 1996	2		FY 1997	_
Flement of Cost	2	Unit	Total	;	Unit	Total	į	Unit	Total		Unit	Total		Unit	Total
100	;		2031	3	COST	rost		LOST	Cost	σtχ	Cost	Cost	ot?	Cost	Cost
Hardware										-	100	100			
Software										-	20	20			
Installation										-	7	7			
Other										-		-			
												,			
TOTAL						!									
IOIAL				_			_	_		_	155	155			

Narrative Justification:

OPERATIONAL DATE: September 1996

DESCRIPTION: This submission is an ongoing effort to improve the image processing lab for the Air-To-Surface (AS) Guidance Branch Image Processing Laboratory. The requested hardware and software will help personnel to operate in a more efficient manner, allowing signal and image processing algorithms to be developed and tested faster. The proposed system will include an upgrade to the three computer graphics workstations, a system, developers software upgrade for the workstations, a modern video disk recording system, two super VHS tape recorders, a Macintosh video processing system, and miscellaneous video equipment

The above specified equipment will provide the computing resources necessary to meet the growing demands on image processing laboratory, the Infrared (IR) Storm laboratory, and the branch. The workstation software and hardware will significantly improve the response time to specific requests made on the .aboratory. The technology in use at the Image Processing Laboratory represents the most affordable technology that could be procured in the mid to late 1980's. The equipment is already stretched to its capability limits. Simply adding more memory or more disk space will no longer provide the necessary enhanced performance. Without this modest investment, the laboratory will soon be incapable of fulfilling customers ever increasing expectations and will not be used. NAWCWD will thus lose an important state-of-the-art capability. IR Storm is quickly becoming the premier seeker modeling environment and continuous improvement is a requirement if NAWCWD is to continue to be the expert in this area. The branch requires improved computing, communication facilities if its members are to continue to work together effectively.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = .6 years Return on Investment (ROI) = 139%

Internal Rate of Return = 157%

			CAPITAI	L PURC of lars	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION inds)							A. F. B. B. B. B. B. B. B. B. B. B. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	rch &	Developmen	Į.					C. Next Genera REPLACEMENT	C. Next Generation Host System REPLACEMENT LINE	Host !	System	16KL 7902R	D. N	D. NAWC-AD	
		FY 1993	3		FY 1994			FY 1995	5		FY 1996			FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	Oty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
Next Generation Host System										-	150	150			-
-															
			; ; ;			1									
TOTAL											150	150			

Narrative Justification: OPERATIONAL DATE: July 1996 The Next Generation Host System will eventually replace the Sun 670 systems we now have in the UYS/2 lab as the host of choice, just at the Suns have replaced the VAX 11/780 series at present. An exact description of the components of this system is impossible at this time, due to the nature of the computer industry, and the rapid development cycle of new host systems. However, it is clear that the system must consist of some type of processor, display, input, and storage device. In addition, it must support all of the interfaces needed by UYS/2 and possible other signal processors as they come

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.2 years Return on Investment (ROI) = 40% Average Annual Savings = \$61K

Economic Analysis Impact:

To continue to attract new users and platforms to UYS/2, we must continually more to host or softwre on newer and more powerful host systems as the older systems become obsolete. If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 product line as the sponsor expects.

			CAPITAL	L PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. FY 81 8U	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	search &	Developmen	<b>*</b>					C. TAC-4 REPLACEMENT	EMENT				D. NA	D. NAWC-AD	
											LINE # A	LINE # AWGKL 7906R			
	-	FY 1993	23		FY 1994	4		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	aty	Unit	Total Cost	ot.	Unit	Total	) 10	Unit	Total	2	Unit	Total	į	Unit	Total
											1802	1602	<u> </u>	1802	LOST
TAC-4										-	150	150			
		:												1 1 1 2 1	
TOTAL	-										150	150			

Narrative Justification: OPERATIONAL DATE: June 1996 The Tactical Advanced Computer-4 (TAC-4) is the name of the next standard host computer for DOD. The system will be employed as one of the new host systems for the UYS/2 software development system. Due to the rapidly changing technological environment of ADP, the exact system has not yet been selected. However, the general parts will include some type of Posix compliant, Unix based processor with a high resolution display and capability of supporting most of the standard military interfaces. All of the current host systems for the UYS/2 are currently commercial off-the-shelf systems. Because the TAC-4 represents a standard host machine that is widely used it is important for our program to demonstrate compatibility and portability to this host. There will be a 30% increase in productivity.

The standard nature of the TAC-4 makes it an ideal candidate as one of the future host machines for UYS/2. For UYS/2 customers within the Navy it will be a better choice than any of the COTS host systems which will be available in the 1996 timeframe, because of increased availability and longer lifecycle. The equipment will support the UYS/2 project and, indirectly, other projects which employ UYS/2 as part of their architecture.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.0 years Return on Investment (ROI) = 30% Average Annual Savings = \$45K

Economic Analysis Impact:

If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 product line as the sponsor expects.

			CAPITA (0	L PURCI	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rification ands)							<b>₹</b>	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	arch &	Developmen	ي					C. Help REPLA	C. Help Desk Software REPLACEMENT	are	LINE #AL	LINE #AW6KLC501R	Ö.	D. NAWC-AD	
		FY 1993	3		FY 1994	7,4		FY 1995	95		FY 1996		L	FY 1997	1
Element of Cost	oty	Unit	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	oty	Unit	Total
Help Desk Software										-	149	149			-
TOTAL		:							1		17.0	074		:	:

Narrative Justification: OPERATIONAL DATE: August 1996

The Help Desk Software will provide enhanced capability to respond to user problems by maintaining a database of problems and solutions and sharing this experience across the NAWCAD. There are currently 15 contractors performing the help desk function throughout the Aircraft Division. This software will provide a database that will allow for rapid response to problems and build on the experience throughout the Aircraft Division. This will reduce the number of help desk personnel required to respond to users' problems. This will result in a savings of \$160K per year. The contractor labor rate is estimated to be \$40K per year. This system will be part of a larger system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 years Return on Investment (ROI) = 60%

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			CAPI		(Dollars in Thousands)	PURCHASES JUSTIFICATION (lars in Thousands)							A. FY B1 BU	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	ಕ್ಕೆ	Developmer	ŧ					C. Processor for REPLACEMENT	C. Processor for Inter-Systems Comm	iter-S	/stems Com	E	D. NAWC-AD	HC-AD	
		FY 1993	ž.		FY 1994	7		FY 1995	2		FY 1006	FY 1006		EV 1007	
Element of Cost	Oty	Unit Cost	Total Cost	ot,	Unit	Total	o ţ	Unit	Total	<b>\$</b>	Unit	Total	2	Unit	Total
Processor for Inter-Systems										-	135	175			160
Communication										-	2	CC			
TOTAL			:								175	175			

Narrative Justification:

OPERATIONAL DATE: September 1996

This processor will handle wide area communications and inter-system communications. The capability of this processor must include network job entry, remote job entry, communications, LAN connectivity, and local terminal/work station connectivity.

With on-going efforts to downsize and decentralize a large portion of the information technology area, it is essential that we retain the capabilities that currently exist while reducing costs and recovering much needed physical space. Remote processing of support equipment data bases and other critical applications must not be impacted by efforts to eliminate older and more costly computing platforms. There must be replacement for the current computing platform that will assure reliable state-of-the-art intersystem communications while providing a substantial cost savings for NAWCAD Lakehurst.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Return on Investment (ROI) = 48%
Average American

Economic Analysis Impact:

Average Annual Savings

If this purchase is not made, all users communicating across systems, especially remote users, will be severly impacted in performing their jobs. Also, the capability to route job output to our facility would be severely reduced or eliminated.

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			CAPITAL	PURCI	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	1F1CATION ands)								A. FY 1996/1997 BIENNIAL BUDGET	24
B. Department of the Navy/Research & Development	earch &	Devel opmen	١					C. Disk Storag Replacement	C. Disk Storage Upgrade Replacement	grade	LINE # A	LINE # AIGKL6105R	D. N	D. NAWC-AD	
		FY 1993	3		FY 1994	7		FY 1995	35		FY 1996	5		FY 1997	7
Element of Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
Disk Storage Upgrade										-	131	131			
TOTAL											1				

Narrative Justification: OPERATIONAL DATE: April 1996 The disk module (six 2GB drives) and 2 disc controller will be used to increase the storage capacity of the Material Management Information System (MMIS) fandem computer. This computer supports procurement and manufacturing activities at NAWCAD Indianapolis.

these systems have been identified as mission-critical software supporting the procurement and manufacturing activities at NAWCAD Indianapolis. At present, the computer's disk storage is constrained by physical limits of the computer system cabinets. Disk drives are mounted internally, and only four slots remain available (of eighteen total). These drives are accessed through internal multifunction controllers (MFGs) which also control tape and The MMIS Tandem computer runs the Material Information Tracking System (MITS) and the Automated Storage, Kitting, and Retrieval System (ASKARS). communications devices.

The proposed procurement provides six gigabytes of external mirrored disk storage, accessed through dedicated high-speed disk controllers. The data transfer rate of the MFCs or 1.9 seconds per transaction.

The equipment would prevent delays in material receipt, storage and issuance, thereby reducing cycle time and expediting the shipment of products to the

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 0.7 year Paturn on Investment (ROI) = 86%

Return on Investment (ROI) = 86% Average Annual Savings = \$113

ECONOMIC ANALYSIS IMPACT:

If the project is not funded the MITS and ASKARS databases will be severely limited. The continued use and the inevitable expansion of these two mission-critical databases would not be possible with the current supporting equipment due to storage constraints.

			CAPITAI (D	L <b>PUR</b> CI of lars	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION nds)							A. FY BII	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	es House	Developmen	Į.					C. Data Collect Replacement	C. Data Collection System Replacement	Syste		LINE # AIGKL5906R	D. NAWC-AD	IC-AD	
		FY 1993	3		FY 1994			FY 1995	5		FY 1996	5		FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total	aty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty .	Unit Cost	Total Cost
Data Collection System										-	125	125			
			<u></u>												
							_							-	
TOTAL		:									125	125			

Narrative Justification: OPERATIONAL DATE: May 1996

The Data Collection system will be used to automate the collection and processing for the Material and Resource scheduling (MARS) system, Trouble Reporting and Correction (TRAC), and Manufacturing Certification Program (MCP). These programs provide data for the manufacturing shop floor to track performance, detect process problems, and maintain processes. The collection of data is accomplished through the use of hand held individual diode Laser scanners and remote data collection terminals connected to one of two main microprocessing units. Additionally, this system will also provide automatic generation of floor personnel labor cards by a log-in and log-out process.

Systems Assembly and Test (SAT) is comprised of 190 craftspersons and 40 support personnel and can have over 350 active jobs being worked at one time. At present there is no cost effective way to collect and process data for process improvements, for earned value analysis, and cost estimating. Currently a manual data entry process is used, but is slow and error prone. Our present labor tracking system is run once a week, and does not allow for real time tracking against planned expenses. SAT personnel and program personnel spend approximately 300 hours per month reconstructing data for report that track the job's progress. It is extremely important to track any possible job cost overruns. Another 500 hours are used in the manual manipulation and collection of the MARS shop operations data. The solution to the problem is to buy and implement an automated data collection system. The craftsperson will use a barcode reader/wand at the start of a planned activity/operation and use a barcode reader/wand to long-in and log-out when the acitivty/operations is complete. Planned information would be downloaded to the data collection system when the job is assigned to the craftsperson's tram, and the craftsperson would be able to compare his actual time spent against the planned activity. When discrepencies occur, the craftsperson would immediately call the appropriate personnel for assistance. The situation would be addressed and corrective action would begin immediately, eliminating costly delays. Statistical evaluation of activity/operations (planned times versus actual times) and job tracking would be accomplished.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period

Payback Period = 2.1 year Return on Investment (ROI) = 43%

Average Annual Savings

Without the proposed data collection system, SAI will be forced to continue with the slow, tedious task of manually recording data. ECONOMIC ANALYSIS IMPACT:

			CAPITAL	PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY B1 BU	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	rch &	Developmen	<b>.</b>					C. PADS Logic   Replacement	C. PADS Logic Eng. Design System Replacement LINE #	Design	n System LINE # A16KL5507R	6KL5507R	D. NA	D. NAWC-AD	
		FY 1993	3		FY 1994	51		FY 1995	15		FY 1996			FY 1997	_
Element of Cost	aty	Unit Cost	Total Cost	ûty	Unit	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost	ûty	Unit	Total Cost
PADS Logic Eng. Design System										-	123	123			
ATOT											121				

Narrative Justification: OPERATIONAL DATE: April 1996 This equipment will replace existing persowal computers which are inadequate in producing test equipment circuit board designs. Projects which will be supported by this equipment include TRSS, HARM RT, Maverick, Cluster Ranger, and BQS-15.

The Production Test Technology (PTT) group designs and fabricates production test equipment using the PADS Logic CAD software package. Engineers are presently producing designs on UNISYS 386 computers. These computers are inadequate due to their slowness and cause inefficient use of engineers' time. The existing hardware has significant performance limitations in performing many screen redraws of a design and in recalculating a plot file when transmittng it to the plotter. PIT produces approximately 700 sheets of drawings per year requiring 16 hours of design time per sheet. The new system will provide engineers with more powerful workstations and increase productivity. The new equipment will reduce engineer design time to 15 hours per sheet since switching between applications will be faster. Also, this system will have larger monitors which will enable viewing of larger zoomed areas at one time allowing changes to be completed more easily.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 year Return on Investment (ROI) = 60% Average Annual Savings = \$74K

ECONOMIC ANALYSIS IMPACT:

This will allow for a decrease The existing computers and plotter are not capable of running the engineering design tools efficiently and expeditiously. in engineer design productivity.

			CAP 1TA	NL PURC	(Dollars in Thousands)	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY	A. FY 1996/1997 BIENNIAL BIDGET	2
B. Department of the Navy/Research & Development	search &	Devel opmer	ıt.					C. Case Tool So	C. Case Tool Software REPLACEMENT	ā			o X	D. NAWC-AD	
	-										LINE # A	LINE # ALGKLO001R			
	1	FY 1993	73		FY 1994	7,4		FY 1995	5		FY 1996	9		FY 1007	
Element of Cost	0ty	Unit	Total Cost	aty	Unit Cost	Total	ot.	Unit	Total	^+0	Unit	Total	2	Unit	1
														1001	rost
Case Tool Software										-	116	116			
	- · · · · · · · · · · · · · · · · · · ·														
						1						:			1
TOTAL											116	114			

Narrative Justification: OPERATIONAL DATE: September 1996

A set of compatible software tools are required to aid in the specification, design, testing, and documentation of software for embedded ADA applications. In addition, a computer compatible with an existing ADA workstation is needed to provide the storage and computational power to run these tools. Two graphic terminals and a portable terminal are also required for remote use via modem of LAN connection. Current capabilities for many of the software requirements consists of manually executing time consuming and error prone tasks. The use of these tools and equipment will streamline and standardize the current process and will fulfill many of the process requirements mandated by DOD-STD-2167A. The Case Tool Software itself is not mandated.

The Case Tool Software will aid in establishing software development processes, as well as help to automate many of the important tasks performed during software development, such as configuration control, documentation, and testing. Once the Case Tools are incorporated into the NAWCAD process, a more defined and controlled effort will be achieved which will yield better products at lower costs.

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COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.4 year Return on Investment (ROI) = 22% Average Annual Savings

Economic Analysis Impact:

Non-procurement will perpetuate the problem of executing tasks that are error-prone and time consuming. Where semi-automated tools are available they are currently not standard between users and are awkward to use together.

			CAPITAL	PURCI of tars	<b>IAL PURCHASES JUSTIFICATION</b> (Dollars in Thousands)	IFICATION Inds)							BIENNIA BUDGET	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	rch &	Developmen	ı,					C. Automated DO Updates REPLACEMENT	ited DOC MC	SMT Pu	C. Automated DOC MGMI Publishing System Updates REPLACEMENT LINE # ALGKLOOOGR	304R	D. NAWC-AD	c-AD	
		FY 1993	3		FY 1994	4		FY 1995	5		FY 1996			FY 1997	
Element of Cost	aty	Unit	Total Cost	ûty	Unit	Total Cost	aty	Unit Cost	Total Cost	ûty	Unit To Cost C	Total Cost	0ty	Unit Cost	Total
Automated Document Management and Publishing Systems Updates										-	100	100			
TOTAL											100	100	t		

Narrative Justification: OPERATIONAL DATE: July 1996

application software. The system as presently configured, lacks the necessary capability and functionality. The equipment requested will upgrade memory, disk storage, publishing process control software and related maintenance support. This will allow the DOD-mandated CALS publishing effort at Lakehurst to become operational and enable the production technical manuals and other documents. The automated document management and publishing system (ADMAPS) is a desktop publishing system consisting of SUN workstations and CALS-compliant

NAWCAD Lakehurst is utilizing the existing system with limited success due to memory and software limitations. The proposed method includes the elimination of many manual steps in a labor intensive process by providing enhanced automation to improve capacity, performance and document management.

Expected benefits include faster cycle time, reduced transaction cycle and better quality documentation to the Fleet at reduced life cycle cost, in direct support of NAWCAD Lakehurst mission.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1 year Return on Investment (ROI) = 81% Average Annual Savings = \$81K

Economic Analysis Impact:

If not procured poorer quality technical manuals resulting in maintenance and rework costs will directly impact Fleet operations. There will be increased administrative and spare parts costs, and increased rework and associated costs due to inefficiencies in the existing process which is very labor intensive and lacks the capability to prevent and detect errors. It will have a negative impact on production capability in a downsizing environment. Existing personnel cannot continue at their present capacity without more automation.

			CAPITAL	PURCH	AL PURCHASES HISTIFICATION	TELCATION									
				ollars	(Dollars in Thousands)	ands)							∈ ≌ ≌	A. FY 1996/1997 BIENNIAL BUDGET	26
B. Department of the Navy/Research & Development	rch &	Developmen					-	C. Classin Expansi	fied Data	Proce	C. Classified Data Processing System Expansion	en en	D. N	D. NAWC-AD	
								Replacement	ement		LINE # A)	LINE # AX6KL0004R			
		FY 1993	3		FY 1994	7		FY 1995	5		FY 1996	5		FY 1007	7
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total	aty	Unit	Total	oty	Unit	Total
Classified Data processing System Expansion										-	100	100			
								м							
***************************************		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		:			!	1		1				1
TOTAL TOTAL											100	100			

Operational Date: April 1996 Narretive Justification

Stand alone Reduced Instruction Set Computing (RISC) based, Portable Operating Systems Information Exchange (POSIX) compliant, Open VMS and Unix application and file servers and X window terminals to expand Computer Science Directorate's (CSD) current classified engineering and scientific computing software requirements include multi-processor computer platforms, X window terminals, tape backup, removable optical and magnetic disk storage, POSIX compliant Open VMS and Unix operating system, and Ada, FORTRAN and C compilers. In additiion, there will be a requirement for off-the-shelf statistical resources. The system will comply with open systems standards and will allow removable magnetic and optical disk storage. The minimum hardware and and engineering analysis software.

With the anticipated workload of Trenton and Warminster engineers, it is critical that CSD be prepared to provide a modern, low-maintenance computing environment for classified processing.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

0.8 years Payback Period:

Return on Investment:

\$99K Average Annual Savings:

Economic Analysis Impact:

CSD to plan for this additional workload. Without this funding, Trenton, Warminster and Patuxent River customers would not have a large enough classified computer center to meet high priority, high visibility program data processing requirements. If a replacement system is not procured, engineers will not receive their reduced classified flight test and engine data in a timely manner, thus delaying test programs and fleet deliveries of items dependent on T&E access to a classified OpenVMS and Unix processing environment for engine data reduction and aircraft systems research and development, it is necessary for environment allows engineers and scientists at Patuxent River to develop applications, analyze and process flight test and scientific data, and generate reports for projects requiring a specialized, secure, classified computing area. With the announcement of Warminster and Trenton personnel requiring The CSD currently maintains and supports a classified engineering and scientific computing environment based on a DEC OpenVMS computer system.

			CAP ITAI	· PURCI	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							E. 22 22	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	arch &	Developmen	يد					C. NAS Equipmer Replacement	C. NAS Equipment Enhancements Replacement	hance	ments LINE # AX7KL0003R		X	D. NAWC-AD	
		FY 1993	3		FY 1994	7,		FY 1995	5		FY 1996			FY 1997	
Element of Cost	aty	Unit	Total Cost	aty	Unit	Total Cost	aty	Unit	Total Cost	aty	Unit Cost	Total Cost	gt,	Unit	Total Cost
NAS Equipment Enhancements						•							-	825	825
TOT A					;										

Narrative Justification: Operational Date: July 1997 This procurement involves the purchase of amputer equipment, including workstations consisting of central processing units, monitors, keyboards, printers, standardized software, etc. This procurement also involves the purchase of coaxial cabling, computer hubs, drops, network cards, and other associated networking equipment. The Naval Air Station requires computer equipment and resources that will meet the needs of its customers as well as provide a quality end product. In order to accomplish this mission, we must advance with computer technology. The Naval Air Station has increasing demands for administrative, managerial, and technical information. To satisfy these demands and assist with planning and tracking resource usage, timely and accurate information must be provided to managers. With current resources, this requirement cannot be satisfied.

Payback Period: 3.4 years Return on Investment: 27%

Return on Investment: 27% Averge Annual Savings: \$226K

Economic Analysis Impact:

archaic computer systems that cannot keep up with additional workloads, and the inability to perform current tasks in an acceptable timeframe. Many administrative and managerial tasks are still performed manually when computer technology could replace these tasks. Many functions could be performed in an extremely efficient and effective manner. Without replacement of these manual tasks and the current computer equipment, planning efforts, financial and resource tracking, data reporting and analysis efforts cannot be met. Current computer equipment at the Naval Air Station is at a substandard level. The effect of remaining at status quo involves high maintenance costs,

	ĺ	T		ľ	T		1
26			2	Total	1803	815	815
A. FY 1996/1997 BIENNIAL RINGET	D. NAWC-AD		FY 1997	Unit	1	815	815
Α.	<del></del>			^+0		-	
		LINE # ALTRISTOR	ę	Total			
	System	LINE #	17.00	Unit			
	tion	L		oty	Ī		
	C. Phototool Generation System Replacement	, e		Total			
	C. Photo Repla	rv 1005		Unit			
				0ty			
rificAtion ands)		70		Total Cost			
TAL PURCHASES JUSTIFICATION (Dollars in Thousands)		FY 1006		Unit Cost			
. 0			$\prod$	Oty			
CAPITAL (0	Ħ	23	1	Total Cost			
	Developmer	FY 1993		Unit Cost			
	rch &			aty			
	B. Department of the Navy/Research & Development			Element of Cost		Phototool Generation System	TOTAL

Narrative Justification: OPERATIONAL DATE: September 1997 The proposed phototool generation system (PGS) will replace the existing NAWCAD Indianapolis phototool generation system which was put into production in 1988. The PGS will consist of 1 flat bed 'aser photoplotter and 3 Printed Wiring Board (PWB) tooling CAM workstations. The photoplotter will be a 1/4 mil resolution, 1/2 mil accuracey 22" x 28" minimum flat bed laser photoplotter, with an automatic load, and queuing for input from 5 workstations.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.2 year Return on Investment (ROI) = 29% Average Annual Savings = \$236k

ECONOMIC ANALYSIS IMPACT:

If this project is not funded, NAWCAD Indianapolis will be forced to begin contracting out the majority of the phototool development at a cost of more than \$400,000 per year. This is due to the fact that the existing equipment will be 10 years old in FY96, and at that time it will become very expensive and illogical to maintain. The software for the existing system has not been upgraded since 1990. New data formats and revisions of old ones will not be available for the current system. To do business in the current environment of computer automation it will be necessary to be able to use all the current PWB data formats.

			CAPITAI (D	L PURC	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							Α 	A. FY 1996/1997 BIENNIAL BUDGET	7.
<ol> <li>Bepartment of the Navy/Research &amp; Development</li> </ol>	earch &	Developmer	ید	1 3				C. ADAPS REPLAC	(Data Acqi EMENT	uisiti	C. ADAPS (Data Acquisition/Process) REPLACEMENT LINE # AW7KL1419R	7KL1419R	D.	D. NAWC-AD	
		FY 1993	Ĕ,		FY 1994	71		FY 1995	35		FY 1996			FY 1997	1
Element of Cost	Oty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	Oty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost
ADAPS (Data Acquisition/ Process)				<del></del>									-	750	750
															····
TOTAL									1		1	1		750	750

Nafrative Justification: OPERATIONAL DATE: December 1997

support of all NAWCAD acoustic sensor sea and air tests. The ADAPS represents an much-needed upgrade to existing NAWCAD data analysis and display systems, for these existing systems use dated technology that lack the channels simultaneously in real time. The ADAPS is a rack-mounted system with ruggedized hardware components that make it an ideal system for on-station The ADAPS is an interactive roll-on/roll-of active sonar receiver and display system used for multi-static active (MSA) sonar processing and display. ADAPS will provide operator controllable audio and visual displays to enable the system operator to quickly and effectively analyze data from up to 32 real time processing power required by current and plan acoustic sensor systems.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

= 3 years Return on Investment (ROI) = 31% Average Annual Savings Payback Period

Economic Analysis Impact:

programs. It should also be noted that the existing systems are nearing the end of their useful lives. These systems are of an older architecture that is rapidly becoming obsolete as advances in digital signal processing (DSP) hardware technologies continue to soar. Furthermore, these systems are difficult to transport and are particulatly difficult for aircraft installations for testing in the field. All of these factors add up to a growing reliability problem with the existing systems. System failures during on-station testing are common and very costly to the sensor programs. Therefore, the Failure to purchase a new acoustic data acquisition and processing system will cause significant delays in the life cycle of the aforementioned sensor acquisition of the ADAPS is critical for the continued success of these acoustic sensor programs in FY95 and beyond.

		,	CAPITAL (Do		TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION inds)							F. 99	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmen	<b>+</b>					C. Engineering REPLACEMENT	C. Engineering Workstation REPLACEMENT	tatio	۔		Ö.	D. NAWC-AD	
											LINE # A	LINE # AL7KL0002R			
		FY 1993	73		FY 1994	•		FY 1995	75		FY 1996	9		FY 1997	
Element of Cost	Qty.	Unit Cost	Total Cost	o t v	Unit	Total	0 tv	Unit	Total	2	Unit	Total	2	Unit	Total
									T						1603
Engineering Work Station									-				_	675	. 675
14101			:						:	•	:	:		:	:
IOIAL														675	675

Narrative Justification: OPERATIONAL DATE: November 1997

Engineering workstations and modeling software will be used for mechanical engineering drawings and analysis that is currently down using less sophisticated software and hardware. The upgrade of this capability will greatly increase the productivity of engineering personnel.

These workstations and compatible software will reduce the number of manhours by approximately one third in the development of systems requiring mechanical engineering capabilities. Major programs that will benefit from the upgrade include the MK7 MOD IV arresting gear system and the aircraft generator test stand.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year Return on Investment (ROI) = 37% Average Annual Savings = \$246K

Economic Analysis Impact:

Efforts to perform state-of-the-art modeling and analysis will be limted and the products that support the fleet will be costly and substandard.

			CAPITAI (D	t PURCI	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							Α F B B	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	earch &	Developmer	ıţ					C. UNIX/DOS WO REPLACEMENT	C. UNIX/DOS Workstation REPLACEMENT	tion	LINE # AL7KL0001R	7KL0001R	D.	D. NAWC-AD	
		FY 1993	3		FY 1994	*		FY 1995	15		FY 1996			FY 1997	
Element of Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost
UNIX/DOS Workstation					•								-	290	290
19707		:													

Narrative Justification: OPERATIONAL DATE: November 1997

Engineering workstations and modeling software will be used for electrical engineering drawings and analysis that is currently done using less sophisticated software and hardware. The upgrade of this capabilty will greatly increase the producitivty of engineering personnel.

These workstations and compatible software will reduce the time spent in circuit layout and analysis of a proposed design. The current process is not standardized between design and engineering notebooks. Standardization of these areas will improve our corporate memory vice reliance on an individual's files and memory. When personnel changes are required during the course of a project, these systems will facilitate the transfer of work to another engineer with minimal impact. In additon, the UNIX format is an open operating system which provides the flexibilty needed for capability with existing systems

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year Return on Investment (ROI) = 36% Average Annual Savings = \$211K

Economic Analysis Impact:

Efforts to perform state-of-the-art modeling and analysis will be limited and the products that support the fleet will be costly and substandard.

		CAPITAL PUI	CAPITAL PURCHASES JUSTIFICATION (Dollars in Millions)	USTIFICAT (tions)	<b>8</b>					A. FY 1994/1995 BIENNIAL BUIDGET	4/1995 AL	
B. Department of the Navy/Research & Development	h & Developme	jt.				C. SGI CNyx REPLACEMENT	y× EMENT	LINE # A	LINE # AX7KL0084R	D. NAWC-AD	٩	
		FY 1994			FY 1995			FY 1996			FF 1997	
Element of Cost	aty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	aty	Unit	Total	0ty	Unit	Total
SGI Ony×										-	5£7	435
		;						; ; ;			435	435

Narrative Justification: OPERATIONAL DATE: January 1998

provide an increased capability to provide digital flight control computer support for all Navy aircraft that utilize digital flight control computers. The test facility will utilize a generic architecture that can support any aircraft using a digital flight control system and shared resources among differenet projects to increase efficiency and cost effectiveness. This submission is for a Silicon graphics SGI Onyx simulation processor. The test facility will have four major components which consist of flight Control Computer Test Stations (FCCIS), computational resources, flight control computer JUSTIFICATION: The SGI Onyx will consist of numerous workstations, Mini Crew Station flight simulators and a high fidelity simulation station which will interfaces, and piloted simulation stations. The SGI Onyx processor is capable of providing high fidelity image generation, high speed aerodynamic modeling, and state of the art simulation processing in a cost effective, integrated package.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Estimated Payback Period = 1.6 years Estimated ROI = 55%

= \$238KAverage Annual Savings

## ECONOMIC ANALYSIS IMPACT:

environmental conditions. Testing in a controlled laboratory environment is preferable to actual aircraft flight testing which could be hazardous, limited performed on the ground will have to be performed in a high risk, high cost flight test evaluation. The ability to accurately interface with the digital flight control system and control simulated aircraft conditions allows for precise replication of flight conditions which would reduce risk to the aircrew. systems not to be conducted, or if conducted, it would only partially evaluate the operational capbilities of these systems. The tests that cannot be in scope, and subject to unpredictable atmospheric conditions. If this project is deferred, it would force the test and evaluation of new technology The development of these capabilities are required to allow the test and evaluation of new technology systems in the laboratory under controlled

			CAPITAI (D	L <b>PURC!</b> ollars	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION ands)							A. B. B. B. B. B. B. B. B. B. B. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	earch &	Developmer	ıt					C. Satel Netwo REPLA	. Lite/Secu ork ICEMENT	re Dat	Satellite/Secure Data Distribution Network REPLACEMENT LINE # AW7KL7902R	ion 17KL7902R	D. N	D. NAWC-AD	
		FY 1993	ស្ត		FY 1994	7		FY 1995	5		FY 1996			FY 1997	
Element of Cost	Oty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	0ty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
Satellite/Secure Data Distribution Network													1	350	350
TOTAL														350	350

Narrative Justification: OPERATIONAL DATE: June 1997 The Satellite/Secure Data Distribution Network will be a high-speed, high-bandwidth computer communications link connecting the UYS/2 and other computer labs. As the operational date is not until FY97, the exact technology to be used is not known at this time. However, it is clear that some type of high-speed local link will be required, including hardware and cabling of some sort, in addition to the outside link-up and crypting/decrypting gear. Other technologies are anticipated, such as video conferencing and possible transmission of holographic data.

The state of the art in data transmission and networking is advancing as fast or faster than other areas of computer technology. Transmission of large quantities of data very quickly will become more and more necessary, with the advent of higher resolution video and other new software technologies, as well as secure data. Networking, more than any other area, has the potential to increase the productivity of the software engineer to great degrees. It is expected that a 30% increase in producitivity will reduce the manpower requriement for 5 wy to 4 wy. Access to repositories of reusable software alone would justify the cost the system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.0 years Return on Investment (ROI) = 30% Average Annual Savings = \$106K

Economic Analysis Impact:

If this equipment is not purchased in FY97 it will lessen the ability to NAWCAD to properly support the UYS/2 product line as the sponsor expects.

			CAPITAL (De	. 0	(Dollars in Thousands)	IFICATION ands)							A. F.	A. FY 1996/1997 BIENNIAL	_	
B. Department of the Navy/Research & Development	arch & I	Developmen	ŧ					C. QUAD 1 REPLAC	C. QUAD 1860 Processing Boards REPLACEMENT	ing B	oards	ards	D. N	D. NAWC-AD		
		FY 1993	73		FY 1994	7		FY 1995	2		FY 1996	S		FY 1997		
Element of Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	Oty	Unit Cost	Total Cost	aty	Unit	Total	aty	Unit	Total	
QUAD 1860 Processing Boards													2	163	326	
TOTAL									1					163	326	

Narrative Justification: OPERATIONAL DAIE: January 1997 This item consists of two 6U VME cards contained in a chassis which can be connected to a UNIX workstation or be used with a single board computer running a real-time operating system. Each CSPI Corp Supercard 4 board is based on four Intel 1860 process sorts. The system has a total processing power of 640 MFLOPS. These projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the ocean environment. These processes consume enormous amounts of processing power. The current system often requires one to several days to complete a computer run. The proposed system would cut the time to process data and observe results by a factor of ten.

This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn around for sponsors and prospective customers. This will also result in more advanced levels of in-house experience for scientists and engineers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.6 years Return on Investment (ROI) = 34% Average Annual Savings = \$112K

Economic Analysis Impact:

If this processor is not procured, complex algorithms could not be investigated in a timely manner which would adversely affect current and future projects.

			CAPITA (D	L PURCH ollars	AL PURCHASES JUSTIFICA (Dollars in Thousands)	AL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY BI BU	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	arch & I	Developmen						C. Corporate X Replacement	ate X-Win ement	dows 1	C. Corporate X-Windows Implementation Replacement LINE # AX7KL0008R	.0008R	D. NA	D. NAWG-AD	
		FY 1993	8		FY 1994	4		FY 1995	5		FY 1996			FY 1997	
Element of Cost	Oty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	۵ty	Unit	Total
Corporate X-windows Implementation													<b>.</b>	300	300
TOTAL														300	300

Narrative Justification: Operational Date: June 1997

This will environment. The software components include individual PC and Macintosh software licenses and documentation for 3000 corporate applications users. X-windows software allows desktop PC and Macintosh users to run Windows XR11 software applications written in the Motif programming environment. allow developers and users to run the latest versions of common off-the-shelf software such as Oracle, SAS, and Focus that utilize the X-windows

This software is different from the Microsoft Windows and Macintosh windowing software environments.

The greatest benefit would be the ease-of-use for each corporate application user at Patuxent River. Just as desktop users are moving toward the Microsoft Office products that have point and click, drag and drop, on-line help, cut and paste functions that are easy to use, it would be a great benefit to corporate applications users to have that same look and feel with financial, inventory, contracts, training, travel or other corporate business data.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 0.3 years Return on Investment: 294%

Average Annual Savings: \$882K

Economic Analysis Impact:

With the Computer Science Directorate (CSD) implementing a new Unix-based distributed corporate server environment, a new fiber optic network communications system, and a new network operating system for the Patuxent River complex over the next five years, it is only logical that the corporate applications software also be modernized and improved. Rather than simple text menus, users will be able to point and click their corporate applications just as they will with their desktop and NOS applications. Without this procurement, CSD will not be able to implement the latest software products that the entire corporate applications are based upon (ie. Oracle and SAS). If this system is not purchased, relapse into obsolete, non-supported computing environments will occur

			CAPITAL (Do		TAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASES JUSTIFICATION  lars in Thousands)							A. F. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	arch &	Developmen	t t					C. H-3 a	H-3 and Variants Simulation System REPLACEMENT LINE # AU7KL	s Simu	lation Sys	1202R	D. NA	D. NAWC-AD	
		FY 1993	23		FY 1994	7,1		FY 1995	5		FY 1996	2		FY 1997	
Element of Cost	aty	Unit	Total Cost	Oty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
H-3 and Variants Simulation System													<del>-</del>	250	250
TOTAL						! ! !						1		250	250

Narrative Justification: OPERATIONAL DATE: September 1997

The H-3 Variants simulation system phase II consists of additional mini-and micro-computer based hardware required to execute system modeling and system engineering and analysis, software in a life cycle support capacity for the H-3 helicopters and variants platforms. The H-3 variants consists of various Foreign Military Sales (FMS) versions of the aircraft. The H-3 and variants simulation system is an add on capability for the Vertical Flight Division and is critical for obtaining future funding for performing systems integration and testing of the H-3 FMS variants and associated avionic subsystems.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.0 years Return on Investment (ROI) = 43% = \$108K Average Annual Savings

Economic Analysis Impact:

Failure to procure this equipment would certainly jeopardize the capability of NAWCAD adequately bidding and performing future work for the H-3 and FMS program offices.

			CAPITA	ollar	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rification ands)							Α π 8 8	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	earch &	Developmer	Į.					C. EXPERT SYSTE REPLACEMENT	SYSTEM W	ITH VO	C. EXPERT SYSTEM WITH VOICE RECOGNITION REPLACEMENT LINE # WC7SLO	E RECOGNITION LINE # WC7SL0520R		D. NAWC-WD	
		FY 1993	3		FY 1994	51		FY 1995	5		FY 1996	~		FY 1997	
Element of Cost	Qty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total	0ty	Unit	Total
Hardware	Ta														
Software														250	250
Installation														-	
Other															
					1 1 1 1			1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		:	•		1	
TOTAL	41													020	250

Narrative Justification: OPERATIONAL DATE: January 1998 DESCRIPTION: The Expert System (also known as the Knowledge-Based system) will be able to handle the intellectual aspects of on-line searching and will have the capability of being hosted on a mainframe computer, allowing remote access by multiple users over existing local area networks (LAN). This system will allow for integrated procedural programming, with interactive accessibility and the capability to interpret the interchange of complex, relational data hosted in various databases.

subjective, and constantly changing rules and regulations from a number of layers of Government. In order to maintain consistent level of work output, we must "keep up with" an average of 8 changed pages of regulations every day. This means procurement personnel are in a constant training mode; funds must be spent on training facilities, training materials, instructors, and labor hours for participants. Implementation of a knowledge based "expert" system would allow for more consistency, reduce Procurement Acquisition Lead Time (PALT), improve the quality of work produced and increase the efficiency of our Current processes for generating, processing, and awarding acquisition packages are largely manual, labor intensive and burdened with a myriad of complex, organization. We anticipate a reduction in funds designated for technical (procurement related) training. Additionally, since a knowledge based system would allow for each customer and buyer to operate in a more effective, efficient, and streamlined manner, we anticipate a cost saving to the Government. A long range benefit of the system is that it would not be limited to the Procurement Personnel, but would be available through the network, to the There will also be a small yearly savings in material, primarily reduced paper technical and support code personnel. Therefore, the extent of the long term cost savings to the Government is difficult to capture, at this point; nowever, we estimate a cost avoidance of about one man year of labor.

Failure to implement an expert system that will involve the entire acquisition process will result in the continued large monetary investment for continual training and inconsistencies in the amount and quality of work produced.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.8 years Return on Investment (ROI) = 21% Average Annual Savings = \$52K beginning in FY98

			CAPITAL (Do		TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	rificatioN ands)							A. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	earch &	Developme	ıt.					C. AUTOMATED L REPLACEMENT	C. AUTOMATEU LIBRARY CAPABILITY REPLACEMENT LINE	KY CAP	BILITY LINE # W	ILITY LINE # WC7SL0521R	-	D. NAWC-WD	
		FY 1993	93		FY 1994	7/4		FY 1995	ž.		FY 1996	9		FY 1007	
Element of Cost	Qty	Unit Cost	Total Cost	aty	Unit	Total	ů,	Unit	Total	2	Unit	Total	2	Unit	Total
Hardware													;	1803	1000
Software	_												-	C	i c
Installation													-	nc7	OC .
Other															
TOTAL	_								1		1 1 1 1	:		:	1
10101														030	040

Narrative Justification: OPERATIONAL DATE: September 1998

DESCRIPTION: The Automated Library Capability (Visual Imagery with Documentation Access on the Network) would provide the Procurement Department Contract specialists with the capability to have access to library materials on the network. This capability would consist of not just an index of all the material, but also the capability to access the documents on line. This project supports the Navy's and the Procurement Department's goal of a "paperless" work environment. Personnel will not have to go to the procurement library to check out documentation or reference data. The automated library capability will result in more efficient use of time and a cost savings to the government. Multiple file copies of documents will not have to be kept. Purchase and maintenance of automated filing systems (power files such as lektrievers, etc.) will no longer be required, making more floor space available for other use. It is estimated to save a manyear of labor and to reduce the contractual services required by a third.

Reliance on manual methods will result in continued manual storage and retrieval of documents, inefficient use of personnel resources, continued maintenance of filing systems, and wasted floor space.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.9 years Return on Investment (ROI) = 20% Average Annual Savings = \$51K beginning in FY98

			CAPITAI (D	L <b>PURC</b> ollars	(Dollars in Thousands)	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	74
B. Department of the Navy/Research & Development	arch & [	Developmen	Į.					C. Sonar Data REPLACEMENT	Data Acqu EMENT	isitio	C. Sonar Data Acquisition/Beamformer REPLACEMENT LINE # AW7KL5306R	7KL5306R	D. N	D. NAWC-AD	
		FY 1993	ĸ		FY 1994	5.		FY 1995	Ψ.		FY 1996			FY 1997	2.
Element of Cost	ūty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	Qty	Unit	Total Cost
Sonar Data Acquisition/Beamformer									0			<del></del>	-	223	223
TOTAL									1					223	223

Narrative Justification: OPERATIONAL DATE: February 1997 The ICS System 1000 is a 64 channel sonar processing system. Features include analog to digital conversion, beamforming, digital filtering, and digital recorder interface.

ocean environment. These processes consume enormous amounts of processing power and existing systems often require computer runs of one or more days to complete. The proposed system would cut the time to process data and observe results by a factor of ten. This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn around for sponsors and prospective customers. This will also result in more advanced levels of in-house experience for scientists and engineers. Projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years Return on Investment (ROI) = 74% Average Annual Savings = \$165K

Economic Analysis Impact:

If this system is not acquired during this fiscal year, analysis will have to be continued on the present systems. Since the present systems do not contain the increased input channels, labor costs will rise to efficiently process data for sponsors.

			CAPITAL (D	L PURC	IAL PURCHASES JUSTIFICA (Dollars in Thousands)	L PURCHASES JUSTIFICATION ollars in Thousands)							A. F.	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	arch &	Developmen	jt.					C. Client Serve REPLACEMENT	C. Client Server SPARC System REPLACEMENT	ARC S	ystem	tem	D. N	D. NAWC-AD	
		FY 1993	5		FY 1994	7,	L	FY 1995	5		FY 1996	9		FY 1007	
Element of Cost	Qty	Unit Cost	Total Cost	۵ty	Unit	Total Cost	۵ty	Unit	Total	0ty	Unit Cost	Total	) }	Unit	Total
Client Server Sparc System														211	211
TOTAL														211	211

Narrative Justification: OPERATIONAL DATE: January 1997 The server is a Sparcsystem 1000 with four 50 MHZ Supersparc processors expandable to eight processors. Each client is a Sparcstation 10 with one 50 MHZ Supersparc processor (expandable to four processors), and a color monitor. Also included in the system is 8 GBytes of mass storage, tape backups, a laser printer, and a color printer. The workstations include accelerated graphics, and 16 bit stereo analog-to-digital (A/D), and will be used for sonar data Software will include development tools and math/signal processing packages. visualization and detection/classification algorithm development.

Projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the ocean environment. These processes consume large amounts of processing power and existing systems often require one or more days to complete a run. The proposed system would reduce the time to process data and observe results.

This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn-around for sponsors and prospective customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years Return on Investment (ROI) = 77% Average Annual Savings = \$161K

Economic Analysis Impact:

If these systems are not purchased in this fiscal year delivery schedules on the development of signal processing algorithms and data processing for sponsors will be adversely affected.

B. Department of the Navy/Research & Development				CAP I TA	. PURCH	AL PURCHASES JUSTIFICA (Dollars in Thousands)	AL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. B.B	A. FY 1996/1997 BIENNIAL BUDUET	26
of Cost         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Unit         Unit         Total         Unit	B. Department of the Navy/Res	earch &	Developmen	<b>.</b>					C. Optica REPLAC	il Jukebox EMENT		LINE # /	4L 7KL0003R	_	AWC - AD	
of Cost			FY 199	3		FY 199	7.		FY 199	25		FY 199	90	L	FY 199	20
1 200 1 200 200 1 200 200 200 200 200 20	Element of Cost	0ty	Unit Cost	Total Cost	۵ty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	Ωty	Unit Cost	Total Cost	ûty	Unit Cost	Total
500	Optical Jukebox													-	200	200
	TOTAL					1 1 1 1 4 1	)    -  -  -  -  -			! ! ! !			1		200	200

Narrative Justification: OPERATIONAL DATE: June 1997

This system consists of drawing management system software and a series of interconnected optical disks (jukebox) as the drawing repository. The system provides engineering drawing management capabilities for retrieval, update, archive, etc.

The present method of acquiring a technical document/drawing requires approximately 8 hours of labor and takes 2-3 weeks for delivery. No less than 200 documents are requested each month by this activity. The replacement system will considerably reduce the amount of time gathering technical data. The system will be tied to the local area network (LAN) allowing all LAN users instant access to the available data. The addition of this system will cut the time to delivery to less than one hour for printing and labor costs will be negligible.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Return on Investment (ROI) = 110%
Average Annual early Average Annual Savings

Economic Analysis Impact:

The consequences of not installing this system are lower productivity and efficiency. Project/problem resolution reponse time will continue to lag potential times, and opportunities for rapid response will be lost. The impact will be most severe on projects that directly affect fleet support.

			CAPI		TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IIFICATION ands)							A. FY 81 8U	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	earch &	Developme	ant					C. DIGITAL FHOTO IMAGE MANAGEMENT SYSTEM REPLACEMENT LINE # WC7KLO53	L FHOTO I	MAGE M	INAGEMENT	AGEMENT SYSTEM LINE # WC7KL0522R	-	D. NAWC-WD	
		FY 1993	93		FY 1994	5.		FY 1995	2		FY 1996	98		FY 1007	
Element of Cost	Qty	Unit	Total	aty	Unit	Total	Ď.	Unit	Total	>+0	Unit	Total	2	Unit	
Hardware	711										1820	1883	,	1000	1807
Software	_													<u>S</u>	3
Installation													-	<u>.</u>	S
Other															
TOTAL		1						1						:	
IOIAL														200	200

OPERATIONAL DATE: September 1998

DESCRIPTION: The system consists of a high-resolution scanner, a computer workstation, CD ROM drive, a CD writer, printer, monitor, a photo Jukebox and application software packages. The Digital Photo Image management System is a writable/readable Photo CD system that has the capability to visually archive more than 125K images. The current archive computer search procedure only uses key words to identify one to several hundred images. These file numbers are then manually located and retrieved. The required image is selected from the samples, printed and then manually placed back into the archives. This labor-intensive procedure can take many hours, depending on the number of items to be retrieved.

If this system is not procured, the Photo Lab archives will continue to be a labor-intensive, computer-generated, manual retrieval system. The Photo archives area is a contract operation, which has been reduced from a three man-year effort to the current two man-year effort; yet the workload has not decreased. This causes delays in research to accommodate day-to-day customer use of the Photo Lab service. The archives increase at a rate of approximately five thousand images per year. Search delays will increase without an improved archive and retrieval system.

CD-ROM technology offers a method of transforming large amounts of conventionally created information into a digital format which can be networked and shared/accessed by many. This advanced method of electronic imaging and data storage is part of the move toward global information networks. It provides more efficient access to information, improved decision-making tools, as well as data exchange/interoperability between military and DoD activities.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.3 years Return on Investment (ROI) = 39% Internal Rate of Return = 29%

Average Annual Savings = \$77K beginning in FY98

			CAPITAL (D	L PURCI	AL PURCHASES JUSTIFICA (Dollars in Thousands)	ME PURCHASES JUSTIFICATION (Dollars in Thousands)							A. FY BIE BUD	A. FY 1996/1997 BIENNIAL BUDGET	7
B. Department of the Navy/Research & Development	arch & I	Developmen	ı,					C. Corporate Replacement	C. Corporate DEC System Expansion Replacement	ystem	Expansion LINE # AX7KL0005R		D. NAWC-AD	tc-AD	
		FY 1993	3		FY 1994	7,1		FY 1995	55		FY 1996			FY 1997	
Element of Cost	ûty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost
Corporate DEC System Expansion													-	175	175
TOTAL														175	175

Narrative Justification: Operational Date: June 1997

requriements include a multi-processor computer platform, tape backup, optical and magnetic disk storage, POSIX compliant operating system, Ada, FORIRAN The 64-bit RISC multi-processing system will expand the Computer Science Directorate (CSD) current engineering and scientific computing resources. The system will comply with open systems standards and will allow fiber network connectivity and optical disk storage. The minimum hardware and software and C compilers, and Ethernet and FDDI network connectivity. In addition, there will be a requirement for off-the-shelf statistical and engineering analysis software.

most companies will have a 64-bit chip on the market. This system will provide modern, rapid, reliable processing of database information and engineering data. It would improve CSD's visibility as an information processing organization, increase efficiency in maintenance and support areas, and improve The 64-bit Alpha chip is state-of-the-art hardware developed by DEC and has clock speeds up to 275MHz. There is currently only one vendor, but by FY97 engineer's data processing turnaround time.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 1.8 years Return on Investment: 49%

Averge Annual Savings: \$85K

support business and data processing on such projects as Command Workload, Corporate Resources Management, the V-22 Osprey tilt-rotor aircraft, the F-18E/F, and numerous H-60, AH-1W and other helicopter flight tests. Investment in expansion of the DEC corporate systems will provide FIEG personnel with faster, open, reliable, portable, and much larger data processing capabilities. If the system is not expanded, managers and engineers will not receive Not only will the CSD be impacted by not investing in this DEC hardware expansion, but all FIEG activities will be impacted. The DEC systems currently their data in a timely manner, thus delaying test programs and aviation projects. Economic Analysis Impact:

			CAP1TAI (D	. 0 1	TAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASES JUSTIFICATION (lars in Thousands)							A. F. B1 BL	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	arch & [	)evelopmer	ı,					C. Silic REPLACEME	C. Silicon Graphics Workstation REPLACEMENT LINE #	S Worl	station LINE # A	tation LINE # AW7KL6502R	D. N	D. NAWC-AD	
		FY 1993	ŭ		FY 1994	7		FY 1995	5		FY 1996	9		FY 1997	
Element of Cost	ûty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit	Total Cost	aty	Unit	Total
Silicon Graphics Workstation													<u></u>	135	135
TOTAL					1	 			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		; ; ;			135	135

### Narrative Justification: OPERATIONAL DATE: May 1997

memory, 24 bit 19 inch color displays, and 1.2 Gigabyta (GB) removable hard drives. Silicon Graphics equipment is required to maintain compatibility with existing hardware. The workstations will be used as clients for the Aircraft Conceptual Design Branch's current Silicon Graphics Crimson workstation, but will have enough capability to function as stand-alone computers for individual projects. All machines will be part of a local Ethernet network. This purchase is necessary to the aircraft Conceptual Design Branch to maintain its capabilities to perform computer-aided design and modeling, Radar Cross This procurement is for three to four UNIX based Silicon Graphics Indigo workstations with at least MIPS R4400 processors, 32 Megabytes (MB) of main section (RCS) signature analysis, aerodynamic analysis, weights analysis, and performance analysis.

# COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.5 years
Return on Investment (ROI) = 59%
Average Annual Savings = \$80K

### Economic Analysis Impact:

Failure to purchase this equipment will result in failure of the Aircraft Conceptual Design Branch to meet the needs of its customers in a cost effective, timely manner. This may result in the late completion of work, or the need to decline work due to lack of adequate resources.

			CAPITA (D	L PURCH	AL PURCHASES JUSTIFICA (Dollars in Thousands)	AL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. F. B. B. B.	A. FY 1996/1997 BIENNIAL BUDGET	2
B. Department of the Navy/Research & Development	earch &	Developmer	Į.					C. Silic REPLA	C. Silicon Graphics Upgrades REPLACEMENT LIN	cs Upg	rades LINE # Al	des LINE # AW7KL7510R		D. NAWC-AD	
		FY 1993	73		FY 1994	7.		FY 1995	75		FY 1996	9		FY 1997	7
Element of Cost	aty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total
Silicon Graphics Upgrades													***	115	115
TOTAL		!	1					1			2 2 2 3 4			115	115

Narrative Justification: OPERATIONAL DATE: May 1997 This equipment will provide the required technology upgrades to existing silicon graphics workstations. These upgrades will consist of two types of components; (a) processor/bus update to increase speed of control and data processing and (b) display/video upgrades to provide wide band data display/compression and formatting. These upgrades will bring older technology up to current levels of capability and performance. They will offer 30% productivity improvements in laboratory utilization. The reduction in power and cooling is 15% annually and the maintenance savings will be 35% annually.

Currently, system operators must work double shifts during the test to process the data required for report generation. Assuming a test duration of one week and two engineers running the data acquisition and display system for a double shift, then 20 man weeks of effort (\$55K) would be required to process the data each year (using our 5 tests per year average). With the ADAPS, the same data could be processed in a single shift.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.8 years Return on Investment (ROI) = 32%

Average Annual Savings =

Economic Analysis Impact:

rapidly becoming obsolete as advances in digital signal processing hardware technologies continue to soar. Furthermore, these systems are difficult to transport and are particularly difficult for aircraft installations for testing in the field. All of these factors add up to a growing reliability problem with the existing systems. System failures during on-station testing are common and very costly to the sensor programs. Therefore, the acquisition of the ADAPS is critical for the continued success of these acoustic sensor programs in FY97 and beyond. Failure to purchase a new acoustic data acquisition and processing system will cause significant delays in the life cycle of the aforementioned sensor programs. It should also be noted that the existing systems are nearing the end of their useful lives. These systems are of an older architecture that is

			CAPITAL (Do	AL PURC Dollar:	TAL PURCHASES JUSTIFICATION (Dollars in Thousands)	TIFICATION ands)							A. FY BI	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	ارت مع	Developmer	t.					C. Electr Produc	C. Electronic Systems Department Productivity	ews De	oartment LINE # A	rtment LINE # AX6KL0011P	D. NAWC-AD	MC-AD	
		FY 1993	73		FY 1994	7.		FY 1995	25	L	FY 1996	9		EV 1007	
Element of Cost	aty	Unit	Fotal Cost	aty	Unit Cost	Total Cost	0ty	Unit Cost	Total	aty	Unit	Total Cost	at,	Unit	Total
Electronic Systems Department										-	700	700			
		!									400	700			

November 1997 Operational Date:

effort of approximately \$400K/year. The goal of this procurement is to continually increase capabilitities and enhance features of the laboratories so that department personnel can provide increased services to customers providing test and evaluation results in a timely manner with greater accuracy. The Electronic Systems Department (SY100) consists of various labortories, each consisting of minicomputers, workstations, personal computers, file servers, peripherals, software, and data bases all connected to various computer networks. This submission is the first phase of a planned three year

This ADP hardware provides increased capabilities in test and evaluation of radar, communications, antenna, and combat identification systems. A UNIX minicomputer provides increased processing speeds to perform complex queries of large test data bases more efficiently utilizing department personnel. Equipment controllers allow for the automation of currently manual test procedures decreasing total test time and increasing engineer productivity. Data bus interfaces enable laboratories to receive/transmit and decode messages directly from data busses. This enables efficient evaluation of current high technologically state of the art avionic systems.

Payback Period:

4.2 years 23% \$92K Averge Annual Savings: Return on Investment:

Economic Analysis Impact:

This input is being submitted based on the concept that planning for future continuous improvement is essential. The Electronic Systems Department (SY100) laboratories are currently operational and utilized. Expanding capabilities and enhancing features of laboratories will produce greater productivity of employees and provide increased services to our customers. If no additional capabilities are added and enhancements incorported the laboratories will eventually become obsolete and test and evaluation services for radars, antennas, communication equipments, and combat identification systems will be

				Total	2,567	2,809	5.376
FY 1996/1997 BIENNIAL BUDGET	¥		FY 1997	Unit			1
A. FY 81 8U	D. NAWC			aty			
	ent	LINE # NKIUUUU	9	Total Cost	1,227	1,793	3,020
	ADP & Telecommunications Equipment (<\$100,000)	LINE	FY 1996	Unit			1
	nicatio			oty			
	Telecommu 1,000)		2	Total Cost			
	C. ADP & (<\$100		FY 1995	Unit			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
				aty			
CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)			-	Total			
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	L.	1	- 1	Total Cost			:
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	ch & D		-	0ty			·
	vy/Resear						
	Department of the Navy/Research & Development			Element of Cost	vision	rision	TOTAL
	B. Departme			Ele	Aircraft Division	Weapons Division	

### CAPITAL PURCHASES JUSTIFICATION

### NAVAL AIR WARFARE CENTER

### ATTACHMENT FOR 9B EXHIBIT

### NKT0000 ADP & TELECOMMUNICATIONS EQUPMENT (<\$100,000) (\$ in Thousands)

LINE	#	DESCRIPTION	<b>F</b> Y96	FY97
		AIRCRAFT DIVISION		
A A 6	KS0000	MISCELLANEOUS EQUIPMENT	226	27
AX6	KS0009P	DIGITAL PHOTOGRAPHIC DARKROOM	99	
AX6	KS0010R	NONLINEAR VIDEO EDITOR	99	
AL6	KS0003R	VAX 7610 UPGRADE	95	
AL 6	KS0008R	OPTICAL SCANNING SYSTEM	90	
AI 6	KS5702R	AOI VRS	80	
AI6	KS6101R	MEMORY UPGRADE (MMIS)	79	75
		DISK DRIVES	75	
AW 6	KS5407R	HP 35565 SPECTRUM ANALYZER	74	
AL6	KS0006R	3D ICE ACCRETE MODELING	70	
AL6	KS0007R	CFD MODEL SYSTEM	70	
L 6	SS0003R	RELATIONAL DATA BASE SYSTEM UPGRADE	60	
L 6	KS0002R	ENGINEERING WORKSTATION (SPARC)	60	
W 6	KS7304R	SUN COMPUTER SYSTEM	50	
W 7	KS1310R	COMPUTER WORKSTATIONS (21)		1,800
A A 7	KS0000	MISCELLANEOUS EQUIPMENT		256
X 7	KS0023N	SILICON GRAPHICS ONYX WORKSTATION		99
L 7	KS0005R	DISK DRIVES		80
L 7	SS0001R	ORACLE UPGRADE		70
W 7	KS7304R	TAC-5		60
W 7	KS7306R	SUN COMPUTER STATION		50
L 7	SS0003R	UNIX OPERATIONS SYSTEM - VAX		50
AIRCR	AFT DIVIS	ION ADP & TELECOM (<\$100,000)	1,227	2,567

### CAPITAL PURCHASES JUSTIFICATION

### NAVAL AIR WARFARE CENTER

### ATTACHMENT FOR 9B EXHIBIT

### NKT0000 ADP & TELECOMMUNICATIONS EQUPMENT (<\$100,000)

(\$ in Thousands)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W C 6 KS1516	Workstations (20)	928	683
W P 6 SS5052	Off-the-Shelf Software	225	500
W C 6 KS1517	Digital Storage Units	184	713
W C 6 KS1518	Servers	172	237
W C 5 KS1505	HR LAN Phases	77	77
W P 5 TS5043	Secure Lab Network	75	80
W W 6 KS0000	Miscellaneous Equipment	72	
W C 6 KS1519	BOMEM Upgrade Spectrometer	60	
W C 7 KS1522	CIL System Upgrades		295
W C 7 KS1521	Scanners		150
W P 5 KS5046	NAWC Comptroller Management System		74
WEAPONS DIVIS	SION ADP & TELECOMM (<\$100,000)	1,793	2,809

			CAPITA (D	L PURCI	CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	IFICATION inds)							A. FY BU	A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	arch &	Developmen	t T				-	C. ANALYST WOR REPLACEMENT	T WORKBENC EMENT	H CAU	C. ANALYST WORKBENCH (AWB) DEVELOPMENT REPLACEMENT	ten t	D. NAWC-WD	WC-WD	
	-										LINE # W(	LINE # WC4DL0097R			
	-	FY 1993	33		FY 1994	4		FY 1995	2		FY 1996	· .		FY 1997	
			Total		Unit	Total		Unit	Total		Unit	Total		Unit	Total
element of Cost	θţ	Cost	Cost	0ty	Cost	Cost	oty	Cost	Cost	۵ty	Cost	Cost	aty	Cost	Cost
Hardware										-	02	02	1	2	702
Software										-	415	415	_	597	347
Installation														}	2
Other										-	10	10		10	10
TOTAL		1	:		t t t t			:						: :	
2010	$\left\{ \right\}$									_	477	492		272	575

Narrative Justification: OPERATIONAL DATE: December 1995

DESCRIPTION: The Analyst's Workbench (AMB) is a framework for the interactive application of computer models and analysis tools. It allows the analyst to step through complex scenarios, pausing at times, or events, to utilize a variety of analysis tools and models. The AWB provides the user the capability to document analyses to presentations or documents. It is currently aimed at the Strike, War at Sea, and Air-to-Air warfare areas. Although the AWB was originally developed for use by analysts in NAWCWPNS Weapons Planning Group, there are requests from several other potential AWB users and model developers for a wide spectrum of applications.

For FY 1995 the following tasks are to be completed: The primary task will be to cross platform the AWB onto several UNIX based engineering workstations. Software required to do this is being released by third party vendors in early FY94. With this software we will be able to host the AWB on the following platforms: Sun Sparc Station, IBM Power PC, HP, Silicon Graphics Indigo.

We will also implement access to various standard data bases in the AWB. This will include Digital Chart of the World produced by the Defense Mapping Agency (DMA) available on CD ROM.

The impact of not continuing the funding of AWB will be that capabilities to the AWB will not be added which will allow flexibility of the system. Additionally, there will be several levels of productivity enhancements that will be bypassed.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.3 years Return on Investment (ROI) = 66% Internal Rate of Return

= \$1,130K beginning in FY96 Average Annual Savings

			CAPITA (D	L PURC	AL PURCHASES JUSTIFICATION (Dollars in Thousands)	TFICATION ands)							A. 88	A. FY 1996/1997 BIENNIAL BUDGET	_
B. Department of the Navy/Research & Development	arch & 1	Developmen	ıt					C. SMS 3rd/41 Productivity	C. SMS 3rd/4th Platform Productivity	form:	LINE # A	LINE # AX5DL0032P	D. NAWC	4MC	17
		FY 1993	3		FY 1994	7		FY 1995	ř.		FY 1996	9		FY 1997	
Element of Cost	aty	Unit	Total Cost	ūty	Unit Cost	Total Cost	ûty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost	aty	Unit Cost	Total Cost
SMS 3rd/4th Platform										_	20	20	-	200	200
					:	! ! ! !			1		1				
TOTAL											50	20	_	700	טטכ

Narrative Justification: Operational Date: December 1995

allow more complete aircraft system testing for ordnance systems scheduled to be cleared on the F/.A-18 aircraft. It will also facilitate aircraft ordnance system testing deemed necessary from fleet requests. The plan for FY95 is to begin expansion software development to include smart aircraft ordnance systems in the F/A 18 C/D, and simulation stimulation software for AV-8B, F-14D, and F/A 18 E/F, and expand data acquisition libraries for the F/A This system consists of developmental software, computer peripherals, interface cables between aircraft 1553 and 1760 multiplex busses, and computer data acquisition software and hardware. The system will be housed in an existing mobile test station unit. The planned effor will be implemented in three phases. The first phase will provide a means for stimulating the avionics in the F/A-18 aircraft into sensing that the aircraft is in flight. This will

following capability for the added aircraft system platforms: (1) analyze the compatibility of the interface cables between aircraft and stores, (2) identify armament system lockouts for mixed store loadings, (3) provide test access to armament system functional components and other aircraft systems and interfaces (such as monitoring buss traffic and break out signals for analysis, (4) determine the functional sequence and operational description to allow for proper control, release, and use of store combinations, and (5) conduct pre-flight weapon system evaluation and post-flight trouble investigations and The operational flight program performs significantly different on the ground than it does during flight. The 3rd and 4th platform will provide the engineering integration problems.

These enahnced capabilities will provide early identification of safety hazards and operational faults on the ground, therefore eventually providing great savings in flight hour and man-hour cost per year. This will be an important asset in the coming years of shrinking budgets.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 1.5 years Return on Investment: 57%

Average Annual Savings: \$199K

Economic Analysis Impact:

required in order to test new systems, therefore more funds will be requested from sponsors, which will render us unable to offer more competitive prices If this purchase is not made it will result in a lesser test and evaluation capability at a higher cost to sponsors. More actual flight test will be in an extremely competitive market.

					2,339	2,400	
26			76	Total	2,	2,	
FY 1996/1997 BIENNIAL BUDGET			FY 1997	Unit			1
A. FY 199 BIENNI BUDGET	D. NAWC			0ty			
		00000		Total Cost	2,012	3,000	5.012
	6	LINE # NMC0000	FY 1996				:
	300,000	Ē	FΥ	Unit			
	ion (<			aty			
	Minor Construction (<\$300,000)			Total Cost			
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CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				Total			
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	B. Department of the Navy/Research & Development		FY 1993	Unit			
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	/Reseal						
	he Navy			Cost			AL
	nt of t	1		Element of Cost	vision	ision	TOTAL
	epartme			Ele	Aircraft Division	Weapons Division	
	8.0				Aircr	Weapo	

### CAPITAL PURCHASES JUSTIFICATION NAVAL AIR WARFARE CENTER

### ATTACHMENT FOR 9B EXHIBIT

### NMC0000 MINOR CONSTRUCTION (<\$300,000) (\$ IN THOUSANDS)

			FY97
	AIRCRAFT DIVISION		
A I 6 MC0000	WAREHOUSE FOR DESC PULLOUT	295	
A X 6 MC0012	SUPPORT SYSTEM ENGINEERING FACILITY	294	
A X 6 MC0066	RELOCATABLE SITE NEAR HANGAR 2133	200	
A X 6 MC0065	TACAMO R&D SUPPORT BUILDING	198	
A S 6 MC0003	B-133 ADDITION (SEC OFFICE EXPANSION)	150	
A S 6 MC0002	B-185 (DIRECT DIGITAL CONTROL SYS BLDG)	140	
A I 6 MC0000	RENOVATE B/2000	125	
A L 6 MC0002	LIGHTS - VARIOUS PARKING LOTS	100	
A L 6 MC0003	ALTERATIONS SUBSTATION 1&2	100	
A X 6 MC0064	ADDITION ATEF FACILITY 1669	80	
A I 6 MC0000	RENOVATION/EXPANSION OF B/2000 LOBBY	80	
A S 6 MC0001	EXERCISE/BIKE TRAIL	80	
A X 6 MC0063	ALTER MECH & NIGHT VISION LAB HANGAR 111	70	
A L 6 MC0001	ENTRANCE - CONTRACTS OFFICE	50	
A L 6 MC0004	INSTALL ELECTRIC WATER PUMP	50	
A X 7 MC0071	MINOR MILCON FOR CASS		299
A I 7 MC0000	COURTYARD RENOVATION		250
A S 7 MC0035	COMMAND FITNESS CENTER		240
A X 7 MC0069	GSE STORAGE/MAINTENANCE FACILITY		200
A X 7 MC0068	LUBRICANT/VAN STORAGE BUILDING		195
A X 7 MC0067	GSE SERVICING & ISSUING FACILITY		190
A S 7 MC0002	B-8 LAB EXPANSION		180
A L 7 MC0002	INSTALL GRINDER		175
A I 7 MC0000	HANDICAP ENTRANCE MAIN BUILDING		150
A S 7 MC0001	B-134 ALTERATIONS TO SUPPORT AEGIS		150
	PARKING LOT LIGHTS		125
A X 7 MC0070	BUILD ORDNANCE ROAD NEAR FACILITY 17		85
A I 7 MC0000	AUDITORIUM MODERNIZATION		50
	NEW CORPORATE SIGN		50
ATPURARY DIVI	SION MINOR CONSTRUCTION (<\$300,000)	2,012	2,339

### CAPITAL PURCHASES JUSTIFICATION

### NAVAL AIR WARFARE CENTER

### ATTACHMENT FOR 9B EXHIBIT

### NMC0000 MINOR CONSTRUCTION (<\$300,000)

(\$ IN THOUSANDS)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W P 6 MC0000	CONSTRUCT WATER TANK NEAR BLDG 13	300	
W C 6 MC0000	WIDEN INYOKERN ROAD	300	
W P 6 MC0000	REMOVE SEAWALL NEAR B-51	300	
W W 6 MC0000	MISCELLANEOUS EQUIPMENT	263	
W P 6 MC0000	ADDITION TO SECURITY BLDG 3	198	
W C 6 MC0000	PROVIDE TRAFFIC SIGNAL BLANDY & KNOX	196	
	TEST PAD RENOVATION	160	
	BLAST WALL FOR WATER TANK	160	
	REHAB COMPTROLLER WORK SPACE	140	
	CONTROL ROOM	130	
	LIGHTING FOR M/L PARKING AREAS	100	
	LIGHTING FOR L/L PARKING AREAS	100	
	SECURE CONFERENCE CENTER, BLDG 761	75	
	STRONG ROOM BLDG 761	<b>7</b> 5	
	INSTALL AIRFIELD SECURITY MEASURES	75	
	CONSTRUCT (MODULAR) ATS LAB	74	
	REPAIR/INSTALL STREET LIGHTS	70	
	SECONDARY CONTAIN FOR TANK, SNI	65	
	N-61 FIRE DETECTION & SUPPRESSION	60	
	CONSTRUCT READY SERVICE MAGAZINE	59	
	WHEELCHAIR LIFT, BLDG 3015	50	
	MECH SUPPT EQUIP FACILITY UPGRADE	50	
	IRRIGATE BY RECLAIMED WATER NEX GAS		250
	OIL/WATER SEPARATOR (VARIOUS)		190
	PURCHASE & INSTALL FUEL TANK (SITE WORK)		150
	REPLACE UNDERGROUND GAS TANK		150
	EXPAND COMPUTER ROOM		150
S 7 MC0000	SULF SITE FENCE, WHITE SANDS		145
C 7 MC0000	NITROGEN DISTRIBUTION SYSTEM		140
P 7 MC0000	DISPATCH OFFICE, NEAR BLDG 674		100
V C 7 MC0000	GUN SYSTEM STORAGE		100
P 7 MC0000	CONSTRUCT REMOTE MONITORING SYSTEM		100
V C 7 MC0000	CONTROL ROOM FOR FLUID ENERGY MILL		100
V C 7 MC0000	RENOVATE CHEM ROOM		100
V C 7 MC0000	MODIFY COMPUTER ROOM		90

### CAPITAL PURCHASES JUSTIFICATION

### NAVAL AIR WARFARE CENTER

### ATTACHMENT FOR 9B EXHIBIT

### NMC0000 MINOR CONSTRUCTION (<\$300,000)

(\$ IN THOUSANDS)

LI	NI	E :	#	DESCRIPTION	FY96	FY97
				WEAPONS DIVISION		
w	C	7	MC0000	INSTALL SAND SEPARATORS ON WELLS #15 & #27		90
W	C	7	MC0000	CONSTRUCT HANDICAP RAMPS (VARIOUS)		90
W	C	7	MC0000	RELOCATE TM TOWER		75
W	C	7	MC0000	MODIFY ROOM 1000D, BLDG. 5		75
W	С	7	MC0000	CORRECT FRESH AIR IN B-24A		60
W	С	7	MC0000	ALT TO CURATION FACILITY		50
W	P	7	MC0000	CONSTRUCT ELEVATOR MOCK-UP		50
W	P	7	MC0000	N-100 OVERHEAD HOIST		50
W	С	7	MC0000	MATERIAL TOOL ROOM FACILITY		50
W	W	7	MC0000	MISCELLANEOUS EQUIPMENT		45
WE	AI	201	NS DIVIS	ION MINOR CONSTRUCTION (<\$300,000)	3,000	2,400

BUSINESS AREA CAPITAL PURCHASES ILIS	CAPITAL P	URCHASES		LEICATION	A. F	A. Budget Submission	omission					
	(Dollars in	(Dollars in Thousands)				ΕΥ 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Loo2 INTI	C. Line No. & Item Description Loo2 INTRUSION DETECTION SYSTEM	escription FECTION SY	/STEM	0	. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Intrusion Detection System									363			

The Intrusion Detection System (IDS) is an integrated security management system which will be installed throughout the Naval Undersea Warfare Center nandling 258 card readers, 21,000 cardholders, and 64 access groups to provide superior protection of restricted areas. The system can also be used to contractor guard force personnel and meet the minimum physical security requirements specified in OPNAVINST 5530,14B. The system is capable for monitor over 2,000 alarms or environmental sensors for building management control. In addition, closed circuit television will be installed to monitor (NUWC) Division, Newport. The system is a computerized, menu driven alarm and access control monitoring system which will reduce/replace the activity at strategic locations throughout the Division.

overhead costs. This system will provide improved access control, intrusion detection, surveillance and record keeping that is essential to the protection Without the Intrusion Detection System (IDS), NUWC Division, Newport cannot attain an improved security posture and make significant reductions in of NUWC resources. After hours security inspections by contractor guards would continue to be totally reliant on on-site personnel rather than IDS support.

The installation of IDS will result in substantial cost savings to NUWC by dramatically reducing the need for guard force services at remote locations. An economic analysis was performed indicating a savings/investment ratio of 1.09 and an annual cost savings of \$ 172K.

BUSINESS ARFA CAPITAL PLIBCHASES III	CAPITAL P	IBCHASE	S II ISTIEK	STIEICATION	A.	A. Budget Submission	bmission		;			
	(Dollars in Thousands)	(housands)			- <del></del>	F	FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ıdget Estir	nate		
B. Component/Business Area/Date DoN/R&D	√Date )			C. Line No L083 ELE TEC	C. Line No. & Item Description  L083 ELECTROMAGNETIC COMPATIBILITY (EMC)  TECHNOLOGY LAB	escription VETIC COM	PATIBILITY		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Cost	Total
EMC Laboratory .									391			200
Norrestine Inselfication												

become preeminent in many key disciplines. These Navy unique scientific and technical areas constitute the Division Spheres of Excellence. One of our areas of expertise under the Spheres of Excellence is Submarine Electromagnetics, Antennas, Electro-Optics and Communications. NUWC was recently One of the leadership areas of the Naval Undersea Warfare Center is Submarine Electromagnetic Systems. To fulfill our mission, Newport Division has assigned by NAVSEA the management of all submarine EMI and EMC issues.

The Electromagnetic Compatibility Technology Lab will provide the necessary equipment for testing in support of the design and development of future EMC systems. The next generation submarine will require all systems to be smaller, more efficient, less expensive, and more user friendly. The EMC Technology Lab will provide the facility to ensure that future EMC systems will meet these requirements. This lab will provide the ability to assess COTS/NDI impact on future submarines electromagnetic systems.

lessons leamed from passed EMC systems with EMI will not occur with future systems. The problems with EMI tend to increase with the increased use of Without this lab, future EMC systems can not be tested for compliance with the required accuracy. This laboratory will provide the facility to assure that COTS/NDI. The EMC Laboratory will provide the equipment for solving EMI problems and testing EMC systems during the design phase, and prior to

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	APITAL P	URCHASES	JUSTIFIC	ATION	Ä.	A. Budget Submission	bmission					
)	Dollars in 1	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ıdget Estin	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No L112 Con	C. Line No. & Item Description L112 Consolidation Automated Supp (CASS) Electro-Optical Station	escription utomated States	e No. & Item Description Consolidation Automated Support Station (CASS) Electro-Optical Station		D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
Consolidation Automated · Support Station (CASS)							-	2286	2286	-	1214	1214

This test station will replace one of the current HP 9500 test systems, some of which are 18 years old. CASS has been designated as the Navy standard for automated test equipment. The EO station will support testing of electronic countermeasures, electronic counter-counter measures and fire control radar. Use of standard automated test equipment will save software generation, training documentation and improved supply support.

B. Component/Business Area/Date			(Dollars in Thousands)		FY.	FY 1996/1997 E	FY 1996/1997 Biennial Budget Estimate	ıdget Estir	nate		
			C. Line No. & Item Description L114 NITRIDING FURNACE SYSTEM	. & Item De	scription VACE SYST	IEM		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
FY	FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST Quant C	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Nitriding Furnace System ·									-	300	300

United States that are licensed to perform this process. They are located in Chicago and Cleveland. This results in high costs for shipping and long delays in delivery. Having the capability to perform NITROTEC will also allow for a smooth flow of units. We are anticipating 350 units for service of this system nitriding work. We have one job in particular that we contract out Nitriding Process. This is the MK50 REXTORP. There are only tow companies in the hardening, or tempering. Presently NUWC, Keyport does not have the capability for nitriding or bright tempering. We presently contract out all of the Furnace system capable of multifaceted heat treatment processing on components, weldments, and assemblies that require nitriding, precipitation

Produrement and installation of a vacuum Nitriding Furnace System would allow NUWC, Keyport to obtain a license to perform the patented NITROTEC Prodess and eliminate the costly delays of shipping. The versatility would also allow replacement of existing equipment used on related processes.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL F	URCHASES	JUSTIFIC	SATION	Ą	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ldget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line N. L115 GE/	C. Line No. & Item Description	crip			D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total	Quant	Unit	Total
Gear Grinder										-	Cost	S. COS
Narrational avitants												

To procure a new CNC Gear Grinder for the capacity of Class 12 to 15 Gears and to improve quality, eliminate scrap, and increase productivity. In gear making operations this machine will expand the NUWC, Keyport gear manufacturing capabilities from class 12 to 15 gears. Supply Center has asked us to manufacture Gears for their rebuild/replacement program.

The new machine is needed for the production of a large variety and size of gears for MK 48 Torpedo, MK 46 Torpedo, and sonar systems. The upgrade to Computerized Numerical Control Technology will reduce set-up and machining time with greater accuracy and the ability to machine more complex gears. The result will be a better product at lower cost.

BUSINESS AREA CAPITAL PURCHASES JU (Dollars in Thousands)	SAPITAL P	CAPITAL PURCHASES (Dollars in Thousands)	JUSTIFIC	STIFICATION	A.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No L166 PRC	C. Line No. & Item Description L166 PRODUCTIVITY NON ADP MINOR	escription NON ADP	AINOR		D. Activity Identification NUWC DIVISION, NPTA	Activity Identification NUWC DIVISION, NPT/KPT	ion PT/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	O	Chit	Total	Quant	Unit	Total	Quant	Unit	Total Cost	Quant	Unit	Total
Productivity Non ADP Minor		200			160		19		1767	17	1600	1624

Narrallye Justification:
For the period FY94 to FY97, NUWC will require minor Non-ADP equipment to increase the productivity of research, development, test and evaluation in the mission area.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	APITAL P	URCHASES	SUSTIFIC	ATION	A. I	A. Budget Submission	bmission					
)	Dollars in T	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ıdget Estir	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No L085 COM	C. Line No. & Item Description L085 COMMS LABORATORY UPGRADE	escription (ATORY UP)	GRADE		D. Activity Identification NUWC DIVISION, NEWI	Activity Identification NUWC DIVISION, NEWPORT	tion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
COMMS Laboratory Upgrade												250

leadership responsibilities are to ensure the Submarine Communications Support System (SCSS) meets submarine mission requirements and platform constraints. NUWC integrates the standard SCSS design into each submarine class and has the following responsibilities for the SCSS: submarine specific missions, platform, and operability requirements; physical system (shipboard configuration) design; interfaces between the SCSS and the One of the leadership areas of the Naval Undersea Warfare Center is submarine onboard communication systems and nodes. Specifically, NUWC platform; submarine antenna systems; subsystems, hardware, and supporting software required to perform submarine unique functions; system developmental testing and technical evaluation of the shipboard configuration of the SCSS; and system-wide Technical Direction Agent (TDA) integration and testing of physical subsystems and components, including certification with the submarine combat system; at-sea prototyping,

The Submarine Electromagnetic and Communications Department at the Naval Undersea Warfare Center Newport Division is the world leader in submarine the center mission. The COMMS Lab Upgrade will provide the necessary equipment for the research and development of future communication systems communication systems. Through the use of advanced technologies, the Department is able to pursue research in submarine communications to fulfill to meet the submarine roles and missions and fulfill communication leadership responsibilities.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL P	URCHASE	S JUSTIFIC	CATION	¥.	A. Budget Submission	bmission					
	(Dollars in Thousands)	Thousands)				7	1996/1997	FY 1996/1997 Biennial Budget Estimate	ndget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No.	C. Line No. & Item Description L116 ELECTRODISCHARGE MACHINE	escription HARGE MA(	CHINE		D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Cost	Total	O	Unit	Total	To de	Unit	Total
Electrodischarge Machine								is s	1000	000	Cost	Cost
							-	067	750			

manufacture. This existing machine is 30 years old (16 years past its life expectancy) and is not a candidate for rebuild or overhaul. The manufacturer of this machine has gone out of business and replacement parts are difficult to obtain. The new machine will be utilized for parts that we are presently unable to Electrical Discharge Machines are a way of manufacturing specialty parts by sending current through an electrode in the shape of the part needed to manufacture and is capable of holding tighter tolerances.

would enhance the manufacturing support for all undersea warfare programs at Keyport. It would replace obsolete methods of manufacturing, resulting in faster delivery time and reduce costs. The speed, accuracy and flexibility provides the greatest economy of work piece production in the industry today. Complex dies normally requiring days of tedious craftsmanship can be produced in hours. The EDM machining concept is also environmentally friendly, Machining with the EDM is a fast, economical method of producing a vast variety of tools, dies, and molds essential to Keyport's needs. This machine since it uses plain water as a flushing medium.

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL P	URCHASE	S JUSTIFIC	LIFICATION	Ä	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	idget Estir	nate		
B. Component/Business Area/Date DoN/R&D	a/Date J			C. Line No L117 IND	C. Line No. & Item Description	escription R & CHUCKI	C. Line No. & Item Description L117 INDEX GSC BAR & CHUCKER MACHINE		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Cost	Total	Oliant	Unit	Total
Index GSC Bar & Chucker · Machine										-	Cost 650	Cost 650
Name of the state												

The existing machine cannot hold tight tolerances and must be run at a lower capacity and under constant supervision. Machinists must take extreme care and skill to make sure production parts generated are within tolerance. Our manufacturing schedules must be worked around the low throughput of the existing machine. The new machine tools will reduce setup time and production time for manufacturing. Increased automation will enable less-skilled machinists to operate the machine.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL P	URCHASE	SJUSTIFIC	ATION	Ą.	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				7	1996/1997	FY 1996/1997 Biennial Budget Estimate	ıdget Estir	nate		
B. Component/Business Area/Date DoN/R&D	a/Date J			C. Line No L118 GEA	C. Line No. & Item Description L118 GEAR SHAPER	escription			D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
Gear Shaper										-	450	450
Narrative Justification:												

manufacturing capabilities from 10 inch to 15.5 inch diameter gears in support of MK 48 Torpedo, MK 46 Torpedo, and sonar systems. Supply Center has asked us to manufacture gears for their rebuild/replacement program. Existing machines are worn to the point that accuracy and productivity are This project will replace 2 older manually operated Gear Shapers with a new CNC Gear Shaper. This machine will expand the NUWC, Keyport gear compromised. The upgrade to Computerized Numerical Control Technology will reduce set-up and machining time with greater accuracy, reduced scrap and the ability to machine more complex gears. The result will be a better product at lower cost.

BUSINESS AREA CAPITAL PURCHASES JUS	CAPITAL P	URCHASES	JUSTIFIC	TIFICATION	A.	A. Budget Submission	bmission					
)	Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date	/Date			C. Line N	C. Line No. & Item Description	escription			D. Activity Identification	Identificat	ion	
DoN/R&D				L119 CINC	ONO GEAN NOBBEN	SOEM			NUWC DI	NUWC DIVISION, KEYPORT	EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total
CNC Gear Hobber										-	495	495
North Contraction												

quality gears and gear shafts in support of undersea weapons. Our current CNC shaper can only fabricate parts up to 6" long. The hobber can be used to readiness for future needs. The machine would allow Keyport to efficiently fabricate wider spectrum of parts within the MK 46, MK 48/ADCAP and MK 50 Procurement of a CNC Gear Hobber will replace two insupportable 40 year old manual gear hobbers, and will greatly increase our capacity to manufacture systems. Our existing machines are capable of producing up to Class 10 gear forms, where the proposed replacement hobber is capable of up to Class 12. Upgrading to CNC technology will also bring more repeatability and provide a more efficient fabrication process. Use of CNC equipment also allows make parts up to 36" long, allowing much more flexibility for gear shaft or splined shaft combinations, which would help in maintaining this Center's ess skilled machinists to produce quality parts.

	T	I	-=		
			Total Cost	480	α
	tion (EYPORT	FY 1997	Unit	240	These are
nate	Activity Identification NUWC DIVISION, KEYPORT		Quant	2	wntime.
dget Estir	D. Activity Identification NUWC DIVISION, KEYF		Total Cost		ausing do
liennial Bu		FY 1996	Unit		o obtain, c
t Submission FY 1996/1997 Biennial Budget Estimate	150)		Quant		re difficult t
Budget Submission FY 1996/199	e No. & Item Description MACHINING CENTER (VMC-150)		Total Cost		tives.
A.	. & Item De HINING CEN	FY 1995	Unit		Replacerr luring initia
ATION	C. Line No. & Item Description L120 MACHINING CENTER (VM		Quant		useful life.
JUSTIFIC			Total Cost		e past their
IRCHASES nousands)		FY 1994	Unit		pport a nun
CAPITAL PURCHASE: (Dollars in Thousands)	)ate		Quant		chining cenused to sul
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Machining Center (VMC-150)	Nariative Justification: Replacement of two vertical machining centers that are past their useful life. Replacement parts are difficult to obtain, causing downtime. These are general purpose machine tools used to support a number of USW manufacturing initiatives.

A TO A COLLEGE	MATION	010411001	" I ICTIEIC	MOITAGE	A. E	A. Budget Submission	mission					
BUSINESS AREA CAPITAL PUNCHASES JUST	(Dollars in Thousands)	housands)	Justif	201	-	FY 1	FY 1996/1997 Biennial Budget Estimate	iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No	C. Line No. & Item Description L167 REPLACEMENT NON-ADP MINOR	scription NON-ADP	MINOR	0	D. Activity Identification NUWC DIVISION, NPT/	Activity Identification NUWC DIVISION, NPT/KPT	on >T/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Replacement Non-ADP Minor							19		1559	13		1260

Narrative Justification:

During the period, FY94 to FY97, NUWC will require the replacement of outdated equipment in order to continue to fulfill the mission of the center. This equipment procurement falls under the CPP category of Non-ADP replacement minor.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PURCHASE(	URCHASES Thousands)	SJUSTIFIC	ATION	A.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estir	nate		
B. Component/Business Area/Date DoN/R&D	VDate			C. Line No L086 TRA	C. Line No. & Item Description L086 TRANSDUCER & HULL AR	escription & HULL ARR	I 9 No. & Item Description TRANSDUCER & HULL ARRAY LAB UPGRADE		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996		:	FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Transducer & Hull Array Laboratory Upgrade	•					·			440			480

Division Spheres of Excellence. One of the Division areas of expertise under the Spheres of Excellence is Acoustic Sensors, Transducers and Arrays. To ပ္ fulfill our mission, Newport Division has become preeminent in many key disciplines. These Navy unique scientific and technical areas constitute the The Naval Undersea Warfare Center is responsible for work under its leadership areas of submarine combat systems and submarine sonar systems. continue this work and to fulfill the NUWC mission, the existing labratory must be updated.

Currently, to comply with state pollution requirements, this certification is performed by outside contractors. The upgrade to this lab will position NUWC as a submarine systems of the future. The Transducer and Hull Array Lab is used for the design and development of transducers and arrays for future sonar NUWC must maintain its transducer technology expertise in order to provide the most advanced, compatible, efficient, and cost effective sensors for systems. One part of this facility is a chemistry lab. Certification for hazardous materials and hazardous waste is required for the operation of the lab. site which can perform state certification for hazardous materials. The laboratory instruments used for certification are calibrated, and will be used for environmental analysis as well as on-going R&D tasks.

t Submission FY 1996/1997 Biennial Budget Estimate	D. Activity Identification NUWC DIVISION, KEYPORT	FY 1996 FY 1997	Unit Total Unit Total Cost Cost	220 220	Netrative_Justitication: System cools water used for environmental testing back to ambient, allowing recycling. This saves demand on our existing aquifer and reduces our annual water expenses by \$145K.
A. Budget Submission FY 1996/199	Cri-j	95	Total Cost Quant	-	ing. This saves dem
IFICATION	C. Line No. & Item Des.	FY 1995	Unit Quant Cost		ent, allowing recyc
		FY 1994	Unit Total Cost Cost		sting back to ambi
CAPITAL PURCHASE( (Dollars in Thousands)	a/Date D	FY	Quant		environmental te
BUSINESS AREA CAPITAL PURCHASES JUST (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Cooling System For Environmental Test Facilities	Narrative Justification: System cools water used for evalue expenses by \$145K.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PURCHASE(Dollars in Thousands)	URCHASES housands)	JUSTIFIC	ATION	Ą.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L168 EN	C. Line No. & Item Description L168 ENVIRONMENTAL NON-ADP MINOR	escription AL NON-AD	P MINOR	٥	D. Activity Identification NUWC DIVISION, NPT/	Activity Identification NUWC DIVISION, NPT/KPT	ion PT/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Environmental Non-ADP Minor							3		285	4		371

Narrative Justification:
To comply with environmental regulations while fulfilling our mission, NUWC requires the procurement of Non-ADP minor environmental equipment.

RUSINESS AREA CAPITAL PURCHASES ILISTI	A IATION	IBCHASES	STELLE!	MOITAGIA	A. I	A. Budget Submission	bmission					
	Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ıdget Estir	mate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Lota SMA	C. Line No. & Item Description L013 SMALL LAUNCHER TEST FACILITY	escription HER TEST F	:ACILITY		D. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Test Facility						•			200			
						_						

surface ship weapon handling, launcher and missile technology. A major objective is to reduce the size and weight of launchers, while realizing maximum The Launcher and Missile System Department of NUWC, Division Newport is responsible for the research and development of advanced submarine and efficiency and safety.

launcher prototypes. The facility will be capable of providing either actual device or simulated launches at submergence depths. The facility will provide the The small launcher test facility will be developed to design, procure and install a facility for conducting test and evaluation of internal or external small means to compare performance of prototype systems, including acoustic signature. A dedicated small launcher R&D facility is needed to support expanding work scope in both internal and external small launcher development. Utilizing the the upgraded facility to provide the means to support testing of other internal type small launcher prototypes, as well as external small launcher prototypes. present Internal Auxiliary Launcher (IAL) facility, procured with FY86 Asset Capitalization Program funds, as a base, modifications will be made to enable ncluded in the upgrade will be improved capabilities both from a facility standpoint and a data gathering standpoint.

good start in adding the required small launcher testing capability at NUWC. The upgrade is required to add the capability of testing external small launcher prototypes and to improve the facility as an acoustic data gathering test bed. Without upgrading our present facility, future endeavors in support of internal submarine applications. Additionally, this facility is an ideal size for conducting scale model tests of full size launchers. The present IAL facility provided a This unique facility is the key element to conducting the required research and development regarding new small launchers for internal and external small launchers will be severely hampered.

	I A FIG A	STORTION	) II ICTICIO	MOITA	A. E	A. Budget Submission	omission			0		
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	Dollars in T	(Dollars in Thousands)	JUSTIFIC 0			FY 1	FY 1996/1997 Biennial Budget Estimate	Siennial Bu	dget Estir	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No L087 TOV	C. Line No. & Item Description L087 TOWED & DEPLOYED SENSOR LAB UPGRADE	escription OYED SEN	SOR LAB UP		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996	•		FY 1997	
ELEMENTS		<u> </u>	Total		Linit	Total		Coit	Total		į	Total
OF COST	Quant	Cost	Cost	Quant	Cost	Cost	Quant	Cost	Cost	Quant	Cost	Cost
Sensor Laboratory Upgrade			1	. <u> </u>					275			300

abreast with the new Navy direction. The future Naval missions are expected to be conducted in shallow littoral waters. This will require that new sensors The future of the Navy has shifted directions in the recent past, and the research being conducted at NUWC in submarine sensors is shifting to stay be developed to meet the new challenges of this mission. Not only is the mission changing, but the budget is decreasing. This also adds to the challenges in sensor research.

designing ultra-thin, ultra compact acoustic arrays. These special size requirements must be met for shallow water missions. New sensors and arrays must The Towed and Deployed Sensor Lab Upgrade will help position NUWC to meet these new challenges. The lab will provide the capabilities necessary for be low cost, and expendable. This lab will enable researchers to guarantee that the future of submarine sensors will be low cost, as well as adaptable and common across platforms and missions. Finally, this lab upgrade will provide NUWC with the capability to conduct towed array laboratory testing while avoiding costly at-sea testing.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL PI	URCHASES	SJUSTIFIC	ATION	A.	A. Budget Submission	bmission					
	(Dollars in 1	(Dollars in Thousands)				ΕΥ 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L088 STA INTI	C. Line No. & Item Description LOBB STANDARD SUB RADIO ROOM (SSRR) INTEGRATION FACILITY	escription 3 RADIO RO FACILITY	OM (SSRR)		D. Activity Identification NUWC DIVISION, NEW	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
SSRR									375			350

Integration System Engineering (PISE) for the submarine force and the Navy. PISE consists of the physical design and layout of the SSRR, the integration The Naval Undersea Warfare Center assumes leadership in the area of Submarine Onboard Communication Systems and Nodes. This project will help to of the SSRR with other systems (e.g. Combat, Navigation, Antennas), and the development of submarine communication systems unique hardware and communication systems hardware and software requirements. The SSRR will benefit the submanne force and the Navy in terms of increased operational software. The SSRR is based on the Navy's Copernicus Communication Support System. Similar existing facilities can not be modified to handle future fulfill NUWC's responsibilities in this area. The Standard Submarine Radio Room (SSRR) Integration Facility will enable NUWC to perform Platform effectiveness and reduced procurement and life cycle cost for submarine communications.

NUWC leadership responsibilities for Submarine Communication are to ensure the Submarine Communication Support System meets submarine mission requirements and platform constraints. The SSRR will provide, as outlined in the master plan NUWC with the needed facility to accomplish its mission for communication systems for future submarines.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL P (Dollars in 1	CAPITAL PURCHASE! (Dollars in Thousands)	S JUSTIFIC	CATION	Ą.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	Idget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Logg SUE	C. Line No. & Item Description L089 SUBMARINE IMAGE TRAN	escription IAGE TRAN	e No. & Item Description SUBMARINE IMAGE TRANSMISSION LAB		D. Activity Identification NUWC DIVISION, NEWI	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996		:	FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Sub Image Transmission Lab									450			

submarine strike and surveillance missions. Current technology advances will be incorporated into the designs of the future submarine surveillance The Naval Undersea Warfare Center provides leadership to the Navy in the area of Submarine Electro-Optics. The submarine image transmission laboratory will ensure that the Naval Undersea Warfare Center Newport Division is able to provide timely imagery data that is necessary to support systems.

techniques, imagery enhancement techniques, usable motion video, techniques for automating document imaging and archiving, and advanced imagery This laboratory will provide a unique imagery capability for submarine electro-optics research and development. Specifically, this lab will provide the Electromagnetic Systems Department with the capabilities to develop and support future advanced imagery acquisition, processing, display and transmission. It will also provide the needed resources for conducting research and development in advanced imagery bandwidth compression database development and distribution capability.

R Component/Rusiness Area/Date	DOSINESS AREA CALITAL FORCHASES SOSTI		FICATION	: :	A. budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estir	nate	!	
DoN/R&D			C. Line No L090 SUB	C. Line No. & Item Description SUBMARINE SAIL MEASU	sscription IL MEASUR	e No. & Item Description SUBMARINE SAIL MEASUREMENT PLATFORM		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	on EWPORT	
	FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST Quant	Unit	Total	Quant	Unit	Total Cost	Quant	Unit Cos <b>t</b>	Total Cost	Quant	Unit Cost	Total Cost
Sub Sail Measurement Platform								752			1000

Electromagnetic Systems Department is developing the submarine sail measurement platform to measure antenna performance and radar cross section of As an addition to the previously funded Submersible Sensor Test Platform (SSTP), the Naval Undersea Warfare Center Division Newport Submarine full-scale sail, associated communications and Electronic warfare Support Measures (ESM) sensors, and stealth coatings.

reduced vulnerability in littoral waters. The measurement of antenna performance, satellite communications throughput, and radar cross section will all be This project allows the development of innovative, stealth sails for submarines which allows more effective connectivity and surveillance capability with achieved by this platform.

BUSINESS ABEA CAPITAL PURCHASES JUS	CAPITAL P	JRCHASES	.HUSTIEK	TIFICATION	A.	A. Budget Submission	bmission					
	(Dollars in Thousands)	housands)				FY	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ldget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Loci Cor	C. Line No. & Item Description UNDERSEA SYNTHETIC E CONCEPT EVALUATION	escription ATHETIC EN LUATION	e No. & Item Description UNDERSEA SYNTHETIC ENVIRONMENTS CONCEPT EVALUATION		<ul><li>D. Activity Identification NUWC DIVISION, NEW</li></ul>	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Synthetic Environments Concept Evaluation									450			

systems studies in human factors, operability, performance, evaluation and attack center configurations. This hardware test-bed provides a state-of-the-art facility for rapid prototyping and dynamic evolution of innovative algorithms, information displays and operational concepts related to submarine attack center functions. The associated software environment incorporates sophisticated models of the ocean, ship and weapons kinematics and sensor This facility will provide the Naval Undersea Warfare Center Division Newport with a test-bed simulator used for advanced submarine combat control systems so as to provide a realistic dynamically reconfigurable means of stimulation for the algorithms, information display and concepts under investigation.

specified for performance proposed in a production contract. This test-bed will provide for rapid prototyping and dynamic evaluation of concepts as well as Comprehensive specification of the next combat control system, requires that the capability be proven viable in an engineering sense prior to it being a mechanism for packaging and transfer of prototypes for at-sea evaluation. An economic analysis performed on this project indicates a savings/investment ratio of 1.83 with an annual cost savings of \$284K.

		21341201		I CIF V	A. E	A. Budget Submission	mission					
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PURCHASE: (Dollars in Thousands)	JHCHASES housands)				FY 1	FY 1996/1997 Biennial Budget Estimate	iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	Date			C. Line No Loge Mate	C. Line No. & Item Description Lo69 Material Inventory Manage	escription ry Managen	e No. & Item Description Material Inventory Management Systems		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	on EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Material Inventory and Management Systems (MIMS)							-	173	173			

Consolidates management of non-DBOF materials into one database. Enhances physical inventory and material tracking capabilities of part numbered and National Stock Numbered Items. MIMS is an enhancement of existing systems and the provisions for interface with existing material management systems to provide a standard interface for system users. MIMS was initiated as a cost savings measure for MILCON P-295, and will expand to other storerooms. MIMS will be implemented into a single storeroom in FY94 and expand to two additional areas during FY95.

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL PI	JRCHASES	JUSTIFIC	LIFICATION	A. B	A. Budget Submission	omission					
	(Dollars in Thousands)	housands)				FY 1	FY 1996/1997 Biennial Budget Estimate	iennial Bu	dget <sup>'</sup> Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Lo70 SHC (DEI	C. Line No. & Item Description Lo70 SHOP PROCESS AUTOMATION SYSTEM (DEPOT)	scription S AUTOMAT	FION SYSTE		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Shop Process Automation System (Depot)		•					-	185	185			

Incorporates the features of the existing computer systems for MK 48/ADCAP and MK 46 which supports depot and IMA shop process accounting. The result is totally integrated shop floor control system. The benefits include elimination of duplicate data entry, common user training for IMA and depot, newer and more reliable hardware reducing downtime and improved user interface. FY94 SPAS project in support of MK 48/ADCAP, FY96 project in support of MK 46.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)  A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ate C. Line No. & Item Description D. Activity Identification COMPUTER AIDED PROCESS PLANNING NUWC DIVISION, KEYPORT	FY 1994 FY 1995 FY 1996 FY 1997	Quant     Cost	1 250 250	Natrative Justification: On-line development of operation process orders for Keyport shops. Provide on-line review of proposed procedures and standards by outside groups. Maintain historical records of all proposed and implemented procedural changes. Interface to other Flexible Computer Integrated Manufacturing (FCIM) modules on-line or being developed.
HASES JUSTIFICATION ands)	C. Line L123 <sup>C</sup>	1994	Total Cost		ers for Keyport shops. Primplemented procedural o
EA CAPITAL PURCI (Dollars in Thous	rea/Date R&D	FY	Quant	•	eration process ord of all proposed and developed.
BUSINESS ARE	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Computer Aided Process Planning	Narrative Justification: On-line development of operation promaintain historical records of all proportion of the condition o

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL F	URCHASES	SUSTIFIC	IFICATION	¥	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				7	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	idget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date )			C. Line No L124 INT	C. Line No. & Item Description L124 INTERACTIVE ELECTRON MANUALS	escription ELECTRONI	e No. & Item Description INTERACTIVE ELECTRONIC TECHNICAL MANUALS		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cos <b>t</b>	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
Interactive Electronic Technical Manuals							-	200	200	-	45	45
Narrative Justification:												

Management Activity for a variety of systems we are responsible for development, distribution and reproduction of technical manuals for systems installed Equipment will provide us the capability to handle interactive electronic technical manuals for sonar and combat systems. As Technical Manual in SSNs, SSBNs, shore sites, and trainers. Automation of these functions will reduce the cost per page and will allow NAVSEA to more move documentation workload from OEMs to NUWC.

BUSINESS AREA CAPITAL PURCHASES JU (Dollars in Thousands)	CAPITAL P	CAPITAL PURCHASES (Dollars in Thousands)	3 JUSTIFIC	STIFICATION	Ą.	Budget Submission FY 1996/1997	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	Idget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L125 HYE SYS	C. Line No. & Item Description L125 HYDROGRAPHICS DYNAN SYSTEM	escription ICS DYNAM	ne No. & Item Description HYDROGRAPHICS DYNAMIC SIMULATION SYSTEM		D. Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	tion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Hydrographics Dynamic Simulation System							-	150	150			
Narrative Justification:  Enables Keyport to plan cable runs, hydrophone placement and buoy anchoring using computer-aided technology. Underwater cable runs can be displayed three-dimensionally for calculating total cable length and electrical resistance. Hydrophone towers can be relocated by computer to avoid local seafloor anomalies that may cause signal shadowing.	runs, hydra for calculat ause signal	ophone plac ing total cab shadowing.	sement any	d buoy and	horing usin	g compute e. Hydropl	r-aided tect hone tower	nnology. U	Inderwater	r cable rur / computer	ns can be	local
										·		

Component/Business Area/Date DoN/R&D	(Dollars in Thousands)	SHASES Isands)	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CATION	<del>K</del>	Budget Submission FY 1996/1997	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	udget Estir	nate		<u> </u> 
	te .			C. Line No L126 KINE	C. Line No. & Item Description	escription D DYNAMIC	le No. & Item Description KINEMATIC AND DYNAMIC ANALYSIS		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
	ΕY	FY 1994			FY 1995			FY 1996			FY 1997	
ō	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total
Kinematic and Dynamic Analysis										-	75	75
Natrative Justification:  Develop and analyze the kinematic and dynamic movement of three-dimensional solid models utilizing computer-aided technology. The modeling and simulation software would provide the capability to analyze and dynamically view the interaction of mechanical assemblies to determine interference.  Computer simulations allow us to determine potential interface during design phase, and without mock-ups, saving both time and development costs.	ic and dyna the capabili determine f	mic move lty to ana	ement of t	three-dimer dynamically during desi	sional soli	d models unteraction of and withou	utilizing corr of mechanic ut mock-ups	puter-aide sal assemb , saving bo	d technolo lies to dete vth time an	gy. The narmine into	nodeling efference oment cos	and sts.

BUSINESS AREA CAPITAL PURCHASES JU	CAPITAL P	URCHASES	SUSTIFIC	STIFICATION	A.	A. Budget Submission	bmission					
	(Dollars in Thousands)	Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	idget Estin	nate		
B. Component/Business Area/Date DoN/R&D	a/Date D			C. Line No.	C. Line No. & Item Description	escription NALYSIS			D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Fluid Flow Analysis			<u> </u>							1	75	75

debugging of this interaction between launchers and new vehicles is extremely expensive for each new configuration. Computer simulation allows us to process where multiple modifications are required to adequately cool components. Computer simulation enables us to address potential "hot spots" during the design phase, saving both time and development costs. avoid much of the physical testing required. Heat transfer problems encountered in the packaging of electronics in pressure vessels is an interactive Fluid dynamic phenomena occurring in and around torpedo tube launchways causes mechanical damage to test vehicles and acoustic noise. The

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL P	URCHASES	JUSTIFIC	IFICATION	A.	A. Budget Submission	bmission					
)	(Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L164 MAN SYS	C. Line No. & Item Description L164 MANUFACTURING ENGIN SYSTEM (METOOLS)	escription ING ENGINE OOLS)	e No. & Item Description MANUFACTURING ENGINEERING TOOLING SYSTEM (METOOLS)		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Cost	Total Cost	Quant	Unit	Total
ENGINEERING TOOLING SYSTEM							-	200	200		1800	
The state of the s												

The manufacturing engineering tooling system provides an on-line database for tracking, issuing, receiving and storing information concerning the various conventional and NC machine tools by providing up-to-date information during the pre-production process planning and NC programming stages of mechanical piece part manufacture. This project will integrate the Joint Logistics Services (JLSC)-recommended TIMA-Data Enterprises, with Intergraph tools and fixtures needed in a manufacturing machine shop. This tooling and inventory management application (TIMA) will expedite jobs on both CAD2 CAD/CAM systems.

Areas that received benefit are machine shop tools rooms by reducing inventory and labor costs, and improving repair , inventory and lost tool control. On-line access to tool information will also benefit the tool selection and tool kitting process of NC programming.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PURCHASES (Dollars in Thousands)	JRCHASES housands)	SJUSTIFIC	ATION	Ä.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	Jiennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L170 PRC	C. Line No. & Item Description L170 PRODUCTIVITY ADP MINOR	escription ADP MINOI	·		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NPT/KPT	on PT/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Productivity ADP Minor							. 8		929	17		987

Narrative Justification: For the period FY97, NUWC will require minor Non ADP equipment to increase the productivity of research, development, test and evaluation.

ISIN SES ABEA CAPITAL PURCHASES	CAPITAL P	JACHASES	S.IUSTIFIC	LIFICATION	Α.	A. Budget Submission	omission					
	(Dollars in Thousands)	housands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ıdget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date	·		C. Line No Lo30 REF	C. Line No. & Item Description L030 REPLACEMENT OF CENTRAL ENGINEERING COMPUTERS	escription OF CENTR	e No. & Item Description REPLACEMENT OF CENTRAL SCIENTIFIC AND ENGINEERING COMPUTERS		D. Activity Identification NUWC DIVISION, NEW	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Scientific and Engineering Computers									362			181

Replacement of the obsolete computer equipment will provide the activity with more reliable and cost effective computer resources as well as ensuring that computers will have an average installed age of 9 years. This places the equipment in its final phase of an anticipated 8-10 year life cycle. It is expected that newer versions fail to operate on the older equipment. Historically equipment maintenance costs increase rapidly during the final phases of the life cycle. as the equipment ages system reliability will decrease, system maintenance costs will increase, and system software will have reduced compatibility as the department can provide adequate computational resources to meet the research and development computational requirements of the Division's The Computer and Information Services Department of the Naval Undersea Warfare Center (NUWC) Division, Newport provides central scientific and engineering computational services for the Newport and New London locations. By FY94, the current general purpose scientific and engineering scientific and engineering community.

decreases, loss of personnel productivity as new software productivity enhancements are available but are unable to function on the existing equipment, computer resources necessary to meet the future research and development computational requirements of the scientific and engineering community. reduced services to the user community and technical obsolescence. Consequently, the Division will be unable to provide the necessary corporate If the equipment is not replaced, the Division can expect to incur rapidly escalating maintenance costs, loss of system productivity as system reliability

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PI	CAPITAL PURCHASES (Dollars in Thousands)	3 JUSTIFIC	ATION	A. F	A. Budget Submission FY 1996/199	bmission 996/1997 [	t Submission FY 1996/1997 Biennial Budget Estimate	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L097 ANT	C. Line No. & Item Description L097 ANTENNA RANGE MODERNIZATION	escription 3E MODERI	UIZATION		D. Activity Identification NUWC DIVISION, NEW	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Antenna Range Modernization									125			555

The communication systems of future submarine depends on the research and development being performed at the Naval Undersea Warfare Center (NUWC) Division Newport by the Submarine Electromagnetic Systems Department. The Antenna Range Modernization project will provide the Department with the up-to-date facility for conducting this R &D as well as performing the testing required for these future systems.

developments. The modernization of this range will provide the ability to test antennas over an increased portion of the spectrum required to support new The existing antenna range provides measurement capabilities including both free-space and seawater environments to support submarine antenna submarine communication development.

replaced in order to improve the measurement speed and accuracy of the data. Improved frequency and calibration capabilities to the Submersible Sensor these improvements to the antenna range will enable NUWC Division Newport to maintain its high standard of RDT&E for the design and development of automated data collection capabilities. Finally, the existing overwater arch elevation axis quickly failing mechanical components will be replaced. All of Specifically, as enhancements to the existing system, Radio Frequency (RF) instrumentation and positioning equipment which is antiquated will be Test Platform (SSTP) on Fisher's Island will be implemented. Additionally, this project will upgrade Fisher's Island site link in frequency range and submarine communication systems of the future.

BUSINESS AREA CAPITAL PURCHASES JUS	APITAL PU	JRCHASES	JUSTIFIC	TIFICATION	A. E	A. Budget Submission	omission					
1)	Jollars in T	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	Oate			C. Line No.	C. Line No. & Item Description L064 NUWC Information Techno	scription on Technoto	e No. & Item Description NUWC Information Technology Improvement Program (NITID)		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, NPT/KPT	on PT/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
NITIP							-		520			-

The NUWC Information Technology Improvement Program (NITIP) is one of five programs comprising the NAVSEA Information Management Improvement program. The NITIP has the following objectives:

- Migrate from vendor-dependent sole source and other similar environments to Open Systems Environment (OSE)
  - Provide increased capability for network-based computing solutions for the RDT&E community
    - Lower the cost of NUWC's information technology environment
- Position NUWC IRM to support organizational restructuring and downsizing
- Standardize, where feasible and cost effective, in conjunction with Corporate Information Management (CIM) initiatives • Lower the cost of NUWC's information of the Position NUWC IRM to support organ standardize, where feasible and costs.

  • Standardize, where feasible and costs.

  • The NITIP consists of five projects:

  • Terminate Keybort Unisys mainfra

- Terminate Keyport Unisys mainframe operations
- Terminate Keyport NCR system operations
- Terminate Newport Unisys mainframe operations
- Terminate Keyport Bull/Honeywell mainframe operations
- Ungrade RDT&E computing/upgrade network capabilities

migration, applications that apply to functions common to the NUWC divisions will be moved into the OSE by the local division. Later, these applications will The first four projects outline a plan to migrate current applications from aging proprietary platforms to Open Systems Environment (OSE) and terminate existing mainframe operations. Applications that are unique to each NUWC division will be moved by that division into the OSE. Initially, to speed be evaluated for mutual use.

hardware manufacturers, and complete the phase out of the mainframe computers by downsizing to powerful workstations supported by high speed file The fifth project addresses the need for the RDT&E community to take advantage of the price/performance improvements being offered by commercial servers and networks that support higher speeds (e.g. Fiber Distributed Data Interface (FDDI)). Additionally, sufficient processing power on the users desktop computers also means that applications that once were the exclusive domain of the mainframe or departmental minicomputer can exist in a client/server environment. A key to successful implementation of this environment will be the migration of RDT&E capabilities to the open systems environment (OSE)

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL P (Dollars in 1	CAPITAL PURCHASE: (Dollars in Thousands)	SJUSTIFIC	CATION	Ą.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ndget Esti	mate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L098 FRC	C. Line No. & Item Description L098 FRONT END PROCESSING SYSTEM	escription (OCESSING	SYSTEM		D. Activity Identification NUWC DIVISION, NEW	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Cost	Total	Quant	Unit	Total
Front End Processing Sys											1600	740

engineering computer facility. As the need for secure processing increases it is necessary to add additional or replacement processors on the front-end serve to provide a greater capability than could be acquired individually, thus providing NUWC Division, Newport scientists and engineers with compute capability in-line with their emerging needs. Consolidation onto one system or cluster of systems will save overall hardware, software, and maintenance machines. The addition of processors in this fashion will serve to enhance and centralize critical secure resources. The centralization of resources will This project will provide additional computational power to the secure front-end of the Naval Undersea Warfare Center Division Newport scientific and cost. Pather than have duplications in support personnel, one person will maintain the front-end. As the existing secure front-ends become overloaded and antiquated, users will look for other machines or platforms to migrate their secure work to, when the need is present but the supply isn't. Sometimes actions which have no economic base are then put in action. The additional cost in security monitoring protection, etc. will be greater than one centralized secure front-end.

As NUWC Division, Newport continues to conduct advanced research and development in their mission area, the need for secure processing becomes more of a driving factor. This project will provide a cost effective method for providing the secure processing which will be needed for future undersea warfare systems development

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL P	URCHASES	SJUSTIFIC	FIFICATION	Ą.	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L147 MA	G. Line No. & Item Description L147 MATERIAL CONTROL SYSTEM (MCS) REPLACEMENT	escription TROL SYST	FEM (MCS)		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total	Quant	Unit	Total
Material Control System (MCS) Replacement							-	490	490	-	490	490
Narrative Institution												

MCS. We estimate the level of effort for the same workload to be 45 work years after implementation of the replacement system. The new system will also Material Control System (MCS) was created in the 1970's. It goes down often, spare parts are hard to find, takes up a lot of space and requires a great deal This project will replace the current production planning and control system with a more efficient, capable, and integrable system. Our current system the of support. At our current workload level it takes a level of effort of approximately 140 contractor and civil service work years to operate, maintain and use allow us to eventually integrate the production planning and control system with other information systems (i.e. the work-in-process inventory in the Automated Material Handling Facility, AMHF P-295, B.1002) and FCIM projects (i.e. Manufacturing Execution and Electronic Data Interchange).

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	(Dollars in Thousands)	housands)	2 = 1500			ΕΥ	FY 1996/1997 Biennial Budget Estimate	iennial Bud	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No Lo75 ATE	C. Line No. & Item Description L075 ATE SYSTEM UPGRADE	sscription GRADE		Δ	D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
ATE System Upgrade	-						<b>,-</b>	150	150	-	150	150

Replacement of low-reliability components for several depot Automated Test Equipment (ATE). These test systems support the MK 46 Torpedo, MK 48 ADCAP, and various Combat Systems and Target programs. This will reduce our troubleshooting time from 9 hours/failure to 3 hours/failure. These delays affect our depot workloading and repair turnaround times.

BUSINESS AREA	CAPITAL P	URCHASES	3 JUSTIFIC	ATION	Ä.	A. Budget Submission	bmission						BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION A. B.	
	(Dollars in	Thousands)				FY 1	996/1997 E	iennial Bu	dget Estin	nate			(Dollars in Thousands)	FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	/Date )			C. Line No L072 Con	o. & Item Do nputer Aided	escription Manufactur	ing And Des		. Activity NUWC DI	Identificati VISION, KE	ion EYPORT		C. Lir L072	ne No. & Item Description Computer Aided Manufacturing And Design NUWC DIVISION, KEYPORT
		FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total	Unit Total Quant Cost Quant	Unit Total Quant Cost Quant
Computer Aided Manufacturing and Design							-	190	190		20	50	. Dacion	190

and fixture tooling design along with the improvement of manufacture. Project includes additional networking and system support to establish a link to four CAD 2 CAD/CAM workstations in Engineering, Tool Design, and Numeric Control programming areas will allow an automated means of creating product numeric controlled machines via a Direct Numeric Control (DNC) system. The system will also connect to the Coordinate Measuring Machine (CAM) for inspection of products. Provides a unique and efficient communication environment for integrating several work areas in the manufacture of NUWC products. Benefits include reduced design-to-manufacture time and reduced setup times for machine tools.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	SAPITAL PI	CAPITAL PURCHASES (Dollars in Thousands)	SJUSTIFIC	ATION	A.	A. Budget Submission FY 1996/1997	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	'Date			C. Line No L129 AND	C. Line No. & Item Description L129 REPLACE TEST AND EVALUATION SUPPORT AND ANOMALY CORRECTION SYSTEM	escription AND EVALI CORRECTIV	UATION SUF		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Replace T&E Support & Anomaly Correction System							1	120	120			

The proofing analysis system provides engineers and analysis with the capability to interrogate data files containing run configuration and defect data. To maintain these capabilities, the current system requires modernization. Existing system is over 10 years and system (hardware and software) support is difficult to obtain.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL P	URCHASES	3 JUSTIFIC	ATION	A. E	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				ΕΥ 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	idget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L130 PRC	C. Line No. & Item Description L130 FLEET OPERATIONAL SUPPORT DEPT PROGRAM MANAGEMENT SUPPORT	escription JONAL SUP JAGEMENT	PORT DEPT SUPPORT		D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
Fleet Operational Supt Dept ' Program Management Supt										-	190	190
Narrative Justification:												

As a remote site the Hawaii Detachment office, geographic-unique requirements need to be supported, tracked, and maintained. These included equipment inventory, financial management, material procurement, logistics handling, documentation and other administrative related items. Also included is communication requirements between the two sites at Balboa and North Island. This computer system with its associated network provides this support to perform the daily management and production requirements.

C. Line No. & Ilem Description   D. Activity Identification   L171 REPLACEMENT ADP MINOR   NUWC DIVISION, NPT/KPT	Cost   Cost		APITAL PI	BUSINESS AREA CAPITAL PURCHASES JU (Dollars in Thousands)	SJUSTIFIC	STIFICATION	A. B	Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estir	nate		
Total Quant Cost 1000 7	Total Quant Cost 1000 7	Component/Business Area/Date DoN/R&D				C. Line No L171 REF	o. & Item De	escription ADP MINO	Œ		). Activity NUWC DI	Identificat IVISION, N	ion IPT/KPT	
Total Cost Cost 1000 7	Total Cost Cost 1000 7			FY 1994			FY 1995			FY 1996			FY 1997	
7 0001	7 0001	Ō	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
/C will require minor ADP equipment to replace outdated and obsolete equipment.	/C will require minor ADP equipment to replace outdated and obsolete equipment.								13		1000	7		772
			JWC will	require min	or ADP ec	quipment to	replace oul	tdated and	i obsolete e	quipment.	•		. *	

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	Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	dget Estin	nate		
B. Component/Business Area/Date	/Date			C. Line N	G. Line No. & Item Description	escription	TEME ANIA!		D. Activity Identification	ldentificati	5	
DoN/R&D				L023 CINI	PROJECT (UWSAP)	(AP)	O I EIVIO AIVAL	20	NUWC DI	NUWC DIVISION, NEWPORT	EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
Analysis Project						-			725			800

the identification of operational requirements, qualification of military shortfalls, cost benefit assessment of system alternatives, and formulation of effective System acquisition and technology investment decisions must be carefully assessed in terms of these changes as well as in declining defense assets, the complex contribution of coordinated Naval assets, and the commitment to maintain technological superiority. Warfare Analysis plays a key role in terms of real time distributed systems, and advanced methods for testing that combine computer simulation with on-range operations have been identified which integrated Warfare Analysis Laboratory (IWAL) procured with capital funds in FY89-93. Additional requirements for human-in-the-loop training systems, The research, development, and acquisition of naval warfare force ships and ship systems is being increasingly focused on their ability to support an effective U.S. maritime strategy. The rapidly changing world has dramatically changed the nature of the threat and the most likely types of conflicts. require the further evolution to a distributed computing environment. The Undersea Warfare Systems Analysis Project (UWSAP) will provide this investment strategies for systems acquisition and technology. The first step in conducting the required comprehensive warfare analysis was the distributed computing environment, and provide:

- a massively parallel computer system capable of scalable growth
- neural net software / hardware coupled with artificial intelligence software that can generate and evaluate platform and force level tactics using the massively parallel computer faster and more exhaustively than currently possible
  - software to begin restructuring current simulations to exploit parallel computers
    - a means to more completely model environmental impact on forces

A scalable massively parallel computer system will provide the vehicle for significant improvements in simulation performance not possible with either serial or even vector (CRAY-type) processors. The Neural Net / Artificial Intelligence software coupled with parallel processors will permit the fast generation and evaluation of detailed platform level and force level tactics.

BUSINESS AREA CAPITAL PURCHASES JU (Dollars in Thousands)	CAPITAL PURCHASE: (Dollars in Thousands)	URCHASE Thousands)	S JUSTIFIC	STIFICATION	A.	A. Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	Biennial Bu	Idget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L107 WE/	C. Line No. & Item Description	escription TEMS EQU	e No. & Item Description WEAPONS SYSTEMS EQUIPMENT UPGRADES		). Activity NUWC DI	D. Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total
Weapon Sys Equip Upgrades												700

The WAF has proven to be one of the most significant productivity enhancements at NUWC Division Newport. The continued enhancement of systems in this laboratory system will ensure Division Newport's capability to stay current with the threat to the next century. The WAF is a unique, world class facility --This equipment upgrade is required for the support of weapons analysis at the current level of technology. The Weapons Analysis Facility (WAF) at the Naval Undersea Warfare Center Division, Newport supports the design and development of weapon systems through hardware in the loop simulations. technologies and provide technologies through which tools and applications may be developed to support more innovative and efficient analysis and development. Without the upgrade the opportunity to provide innovative, efficient resources for analysis and weapons engineers will be missed. continued enhancement will ensure this position for many years. The system upgrade project will support the Division's initiatives in emerging

Date  C. Line No. & Item Description of the Descrip	ess Area/I	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	JUSTIFIC	CATION	- ≮	Budget Submission FY 1996/199	t Submission FY 1996/1997 Biennial Budget Estimate	Biennial B	udget Estii	mate		
Quant         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Unit         Total         Cost		Date			lo. & Item D W MISSION,	Description ADP MINOR	_		D. Activity NUWC DI	Identificat	lion PT/KPT	
Ouant Cost Cost Ouant Unit Total Unit Total Unit Total Unit Total Unit Total Cost Cost Cost Cost Cost Cost Cost Cost		FY 1994			FY 1995			FY 1996			FY 1997	
97, NUWC will require minor ADP equipment to increase its technical capability in the research, development, test and evaluation		-	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
97, NUWC will require minor ADP equipment to increase its technical capability in the research, development, test and evaluation							14		925	7		510
	N, 767, N	JUWC will require minor	ADP eq.	uipment to i	increase its	s technical o	capability in	the resear	ch, develo	pment, te	st and ever	aluation

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL PURCHASE	JRCHASES Thousands)	JUSTIFIC	ATION	A. B	A. Budget Submission FY 1996/199	st Submission FY 1996/1997 Biennial Budget Estimate	liennial Bu	dget Estin	nate		
		(anumanau			_						:	
B. Component/Business Area/Date	Date			C. Line No	C. Line No. & Item Description	scription	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		. Activity	D. Activity Identification	uo	
DoN/R&D				L133 NEIWORKING	NE I WORKING MANAGEMENT AND MONITORING	ANAGEME	NI AND		NUWC DI	NUWC DIVISION, KEYPORT	YPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	-
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Networking Management and Monitoring							-	85	85			

Division personnel to quickly and accurately identify and resolve system problems. These tools include automated security management, performance Provides this Center with the necessary equipment to effectively manage and monitor the network and IT infrastructure platforms. The tools enable monitoring, fault detection and configuration management.

BUSINESS AREA CAPITAL PURCHASES JUST	APITAL PI	JRCHASES	JUSTIFIC	<b>IIFICATION</b>	A. E	A. Budget Submission	omission		L			
	Dollars in T	(Dollars in Thousands)				_	FY 1996/1997 Biennial Budget Estimate	sienniai Bu	idget Estir	nate		
B. Component/Business Area/Date	Date			C. Line No	C. Line No. & Item Description	scription		٦	D. Activity Identification	Identificat	ion	
DoN/R&D				L174 IEL	I ELECOMMUNICA I IONS MINOH	CALIONSIN	HONI		NUWC DI	NUWC DIVISION, NPT/KPT	PT/KPT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Telecommunications Minor							က		105			

Narrative Justification: For the period FY94 to FY97, NUWC will require telecommunications equipment to meet new requirements for the Center.

			<del>-</del> #		
			Total Cost	150	
	lion IPT/KPT	FY 1997	Unit Cost		. 4.
nate	Activity Identification NUWC DIVISION, NPT/KPT		Quant	2	
dget Estir	D. Activity Identification NUWC DIVISION, NPT/		Total Cost	170	o i
iennial Bu	Q	FY 1996	Unit Cost		ed softwar
t Submission FY 1996/1997 Biennial Budget Estimate	R		Quant	2	and outdate
Budget Submission FY 1996/199	scription OTSS MINC		Total Cost		e obsolete
A. B	Line No. & Item Description  76 REPLACEMENT OTSS MINOR	FY 1995	Unit		e to replac
ATION	C. Line No L176 REPI		Quant		nelf-softwar
JUSTIFIC			Total Cost		or off-the-si
RCHASES nousands)		FY 1994	Unit	- ****	equire mino
CAPITAL PURCHASE (Dollars in Thousands)	Date		Quant		JUWC will a
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Replacement OTSS Minor	Narrative Justitication: For the period FY94 to FY97, NUWC will require minor off-the-shelf-software to replace obsolete and outdated software.

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL F	URCHASE	S JUSTIFIC	LIFICATION	Ą.	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				ΕŢ	FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ıdget Estii	nate		
B. Component/Business Area/Date DoN/R&D	v/Date			C. Line No.	C. Line No. & Item Description L110 BLDG 123 EXPAND CRUIS ASSEMBLY AND SUPPOR	e No. & Item Description BLDG 123 EXPAND CRUISE MISSILE ASSEMBLY AND SUPPORT FACILITY	E MISSILE		D. Activity Identification NUWC DIVISION, NEWI	Activity Identification NUWC DIVISION, NEWPORT	ion EWPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Cuit	Total	Ollant	Cuit	Total	i d	Unit	Total
Bldg 123 Expansion								1800	220	Soull Coul	Cost	Cost

This project will construct an addition to building 123 -- the cruise missile building. The addition would be located on an existing platform located adjacent to the building. It will house those functions which already overflow the confines of building 123 and are conducted outdoors, weather permitting, on the existing platform.

		Γ			
			Total Cost	210	ें इंद
	tion	FY 1997	Unit		ias arisen
nate	Activity Identification NUWC DIVISION, NEWPORT		Quant		Otto fuel h
dget Estir	D. Activity Identification NUWC DIVISION, NEW		Total Cost		to store C
iennial Bu		FY 1996	Unit		roper place
t Submission FY 1996/1997 Biennial Budget Estimate	FACILITY		Quant		lhe PNTS.
Budget Submission FY 1996/199	scription STORAGE		Total Cost		el used in el used in el
A. B	& Item De FUEL/OIL	FY 1995	Unit Cost	:	y, and as a the Otto fu
ATION	C. Line No. & Item Description L111 OTTO FUEL/OIL STORAGE FACILITY		Quant		and capacity
JUSTIFICATION			Total Cost		d safe guar
RCHASES iousands)		FY 1994	Unit		has increas
CAPITAL PURCHASE: (Dollars in Thousands)	Jate		Quant		em (PNTS)
BUSINESS AREA CAPITAL PURCHASES JU (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Otto Fuel Storage Fac	Narrative Justification: The Propulsion Noise Test System (PNTS) has increased in size and capacity, and as a result, a need for a proper place to store Otto fuel has arisen. This project will provide a small building with all the required safe guards to store the Otto fuel used in the PNTS.

	POBT	FY 1997	Unit Total	+	
nate	D. Activity Identification NUWC DIVISION, KEYPORT	<u> </u>	Quant	-	
t Submission FY 1996/1997 Biennial Budget Estimate	D. Activity NUWC DI		Total		
Biennial B		FY 1996	Unit		
Ibmission 1996/1997	E TO COUN		Quant		
Budget Submission FY 1996/1997	C. Line No. & Item Description L165 NEW SANITARY SEWER TIE TO COUNTY		Total Cost		<b>-</b> <del>1</del> <del>2</del> <del>5</del> <del>5</del> <del>5</del> <del>5</del> <del>5</del> <del>5</del> <del>5</del> <del>1</del> <del>5</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del> <del>1</del>
¥.	lo. & Item E W SANITAR	FY 1995	Unit Cost		oerating co
CATION	C. Line N L165 NE		Quant		ergy and op
S JUSTIFIC			Total Cost		aducing en
CAPITAL PURCHASE: (Dollars in Thousands)		FY 1994	Unit Cost		services, re
CAPITAL P	/Date		Quant		werloaded
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	New Sanitary Sewer Tie To County, at Gate 3	Narrative Justification: Eliminate pump stations and overloaded services, reducing energy and operating costs.

	1				Ā	Budget Submission	bmission					
BUSINESS AHEA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL P	CAPITAL PURCHASES (Dollars in Thousands)	S JUSTIFI(	CATION		FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	ıdget Estir	nate		
B. Component/Business Area/Date	√Date			C. Line N	C. Line No. & Item Description	escription			D. Activity Identification	Identificat	ion	
DoN/R&D				L151 BUI	ILDING 489 !	FIRE PROTE	ECICA		NUWC DI	NUWC DIVISION, KEYPORT	EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
Building 489 Fire Protection							1	590	290			
Narrative Justification: Installs fire protection to the electronics and torpedo (MK 46) operating areas. Fire regulations require that a fire protection system be installed.	lectronics a fire protecti	nd torpedo (ion system t	(MK 46) op oe installed	erating are	Sg:							

A. Budget Submission FY 1996/1997 Biennial Budget Estimate	C. Line No. & Item Description L152 BUILDING 83 FIRE PROTECTION NUWC DIVISION, KEYPORT	995 FY 1996 FY 1997	it Total Unit Total Unit Total Cost Quant Cost	+
	fication	FY 1997	Unit	+
timate	ity Identifi DIVISION		ļ	
udget Es	D. Activi		Total	275
Siennial B		FY 1996	Unit	275
omission 996/1997 B	TION		Quant	
3udget Sub FY 19	Scription REPROTEC		Total Cost	
A.	o. & Item De DING 83 FI	FY 1995	Unit Cost	
ATION	C. Line No L152 BUIL		Quant	
JUSTIFIC			Total Cost	,
CAPITAL PURCHASES (Dollars in Thousands)		FY 1994	Unit Cost	
APITAL P Dollars in 1	Date		Quant	
BUSINESS AREA	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Building 83 Fire Protection

BUSINESS AREA CAPITAL PURCHASES JU	CAPITAL PL	JRCHASE	S JUSTIFIC	STIFICATION	Ÿ.	Budget Submission	bmission					
	(Dollars in Thousands)	housands)				FY 1	FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ıdget Estir	nate		
B. Component/Business Area/Date DoN/R&D	√Date )			C. Line No L153 BUIL UPC	e No. & Item D BUILDING 94 SI UPGRADES	escription UBSTATION	Line No. & Item Description BUILDING 94 SUBSTATION AND SERVICE UPGRADES		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	lion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost
Building 94 Substation And · Service Upgrades							<b>-</b>	230	230			
Narrative Justification: Upgrade power system to eliminate old, energy-inefficient units that are beyond economical life.	minate old, ε	nergy-ineff	ficient units	that are be	syond ecor	omical life			,			

BUSINESS AREA CAPITAL PURCHASES JUST	CAPITAL P	URCHASES		FICATION	A. I	A. Budget Submission	bmission					
	(Dollars in	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	3iennial Bu	idget Estin	nate		
B. Component/Business Area/Date DoN/R&D	√Date )			C. Line No L154 BUII	C. Line No. & Item Description L154 BUILDING 234 ELECTRICA	escription ELECTRICA	e No. & Item Description BUILDING 234 ELECTRICAL MODIFICATIONS		D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	on EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Building 234 Electrical Modifications							-	240	240			

Install an electrical system that meets National Electrical Code requirements. Install a motor control center for the boiler area.

This building provides High Pressure Air (HPA), steam, and emergency power for the Division. The existing system is beyond economical repair, is inefficient, and no longer has parts available. The new system is required to continue provided daily and emergency services to the Division.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION  (Dollars in Thousands)	V/Date C. Line No. & Item Description C. Line No. & Item Description D. Activity Identification NUWC DIVISION, KEYPORT	FY 1994 FY 1995 FY 1996 FY 1997	Quant     Cost     Quant     Cost	Var 500 Var 500	Natrative Justification: Demolish 35K square feet of facilities with excessive operations and maintenance costs. Savings are in excess of \$800K/year.
AL PURCHASES JUSTIFICATION is in Thousands)	C. Line	FY 1994	Unit Total Cost Cost		is with excessive operations and mai
BUSINESS AREA CAPIT (Dolla	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST Que	Fact of Life Demolition Buildings	Narrative Justification: Demolish 35K square feet of facilitie

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL I	CAPITAL PURCHASES (Dollars in Thousands)	S JUSTIFIC	CATION	Ä	Budget Submission FY 1996/1997	t Submission FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ndget Estir	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L156 BUII	C. Line No. & Item Description	escription LECTRICAL	e No. & Item Description BUILDING 38 ELECTRICAL MODIFICATIONS		D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	tion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Cost	Total Cost	Quant	Unit	Total Cost
Building 38 Electrical Modifications							-	300	300			
Narrative Justification: Install an electrical system that meets National Electrical Code requirements.	r meets Na	tional Electri	cal Code r	equirements	, io							
The electrical system has been updated and patched as new and more modern machine tools and welding operations have been installed. The system no longer can be added to and voltage fluctuations make operation of machine tools difficult.	n updated oltage fluct	and patched uations mak	l as new ar e operatior	n <b>d more</b> mo n of machin	dern mach e tools diffi	iine tools a cult.	nd welding	operations	have beer	ו installed	. The sy	stem no
										,		
										٠		

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL PURCHASE: (Dollars in Thousands)	URCHASE(	S JUSTIFIC	CATION	Ä.	A. Budget Submission FY 1996/1997	bmission 996/1997 E	t Submission FY 1996/1997 Biennial Budget Estimate	dget Estin	nate		
B. Component/Business Area/Date DoN/R&D	/Date			C. Line No L157 BUII	C. Line No. & Item Description L157 BUILDING 76 FIRE PROTECTION	escription RE PROTE	STION		. Activity NUWC DI	D. Activity Identification NUWC DIVISION, KEYPORT	ion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
Building 76 Fire Protection							1	300	300			
The second secon												

## Narrative Justification.

Install a fire protection system and fire structural improvements to meet National Fire Code requirements.

Building 76 is the headquarters for NUWC Division Keyport fire protection (personnel and equipment) and police department (dispatch and personnel). The facility is required for continued operation of the Division.

Loss of Building 76 and its operations would be detrimental to the well-being of the division industrial operations and housing residents. Increased costs would result from constructing a new facility.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL F	CAPITAL PURCHASES (Dollars in Thousands)	3 JUSTIFIC	SATION	-Ÿ	Budget Submission FY 1996/199	t Submission FY 1996/1997 Riennial Budget Estimata	Riennial Ru	Aget Estin	0		
B. Component/Business Area/Date	/Date			JA oui I					ager Fall	late		
DoN/R&D				L158 COF DISC	C. LINE NO. & HEM DESCRIPTION L158 CORRECT FIRE DEPARTMENT DISCREPANCIES BUILDING 105N	escription EDEPARTMES ES BUILDIN	ENT G 105N	<u> </u>	D. Activity Identification NUWC DIVISION, KEYF	Activity Identification NUWC DIVISION, KEYPORT	tion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Cost	Total
Correct Fire Department Discrepancies Building 105N										-	300	300
Narrative Justification:												
Install a fire protection system and fire structural improvements to meet National Fire Code requirements.	and fire str	uctural impr	overnents t	to meet Nati	ional Fire C	Sode requii	rements.					
Building 105N houses torpedo storage materials and is connected to an adjacent MK 48 facility.	storage m	aterials and	is connect	ed to an ad	ljacent MK	48 facility.						
										•		
								:				

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION	CAPITAL P	URCHASE	S JUSTIFIC	SATION	- Y	A. Budget Submission	bmission					
	(Dollars in 1	(Dollars in Thousands)				FY 1	FY 1996/1997 Biennial Budget Estimate	Biennial Bu	ıdget Estir	nate		
B. Component/Business Area/Date DoN/R&D	v/Date )			C. Line No.	C. Line No. & Item Description CONSTRUCT TORPEDO / CONTAINER LAYDOWN AREA	escription JRPEDO/C A	ONTAINER		D. Activity Identification NUWC DIVISION, KEYP	Activity Identification NUWC DIVISION, KEYPORT	tion EYPORT	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	, Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Construct Torpedo / Container LayDown Area										-	300	300

## Narrative Justification:

Clear, level, and pave an area at the Undersea Warfare Annex for in-process storage of inert ordnance materials. The area will be lighted and fenced for security considerations.

The existing area is a temporary facility located in a remote location at the Undersea Warfare Annex. the area is located under an ESQD arc that restricts operation.

			Total Cost	300	
	⊨	97			
	tion	FY 1997	Unit	300	
nate	Activity Identification NUWC DIVISION, KEYPORT		Quant	-	
dget Estir	D. Activity Identification NUWC DIVISION, KEYF		Total Cost		
iennial Bu		FY 1996	Unit Cost		
t Submission FY 1996/1997 Biennial Budget Estimate	ON GATE AT		Quant		
Budget Submission FY 1996/199	le No. & Item Description CONSTRUCT NEW SCORPION GATE AT THE UNDERSEA WARFARE ANNEX		Total Cost		
A. E	C. Line No. & Item Description CONSTRUCT NEW SCORE L160 UNDERSEA WARFARE AN	FY 1995	Unit Cost		trucks.
ATION	C. Line No L160 OND	:	. Quant		ves hauling
JUSTIFIC			Total Cost		by explosi
JRCHASES housands)		FY 1994	Unit Cost	:	events use
CAPITAL PURCHASE: (Dollars in Thousands)	Date		Quant		ution that pr
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	New Scorpion Gate At the Undersea Warfare Annex	Narrative Justification: Corrects unsafe gate configuration that prevents use by explosives hauling trucks.

Γ						
				Total Cost	300	
		ion EYPORT	FY 1997	Unit	300	ge craft.
	nate	Activity Identification NUWC DIVISION, KEYPORT		Quant	-	er for ran
	lget Estin	D. Activity Identification NUWC DIVISION, KEYF		Total Cost		t and bow
	iennial Buc	Δ	FY 1996	Unit Cost		of the floai
mission	FY 1996/1997 Biennial Budget Estimate			Quant		re upgradė
Rudget Submission	FY 19	scription OVEMENTS		Total Cost		ties.
A		. & Item De OCK IMPRO	FY 1995	Unit		ed capabili
	ATION	C. Line No. & Item Description L161 KB DOCK IMPROVEMENTS		Quant		table improves to rang
	JUSTIFIC			Total Cost		dock to engesponsiver
	IRCHASES nousands)		FY 1994	Unit		ergy, and r
	CAPITAL PURCHASE (Dollars in Thousands)	)ate		Quant		capabilities
	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	KB Dock Improvements	Natrative _Justification: Add additional float and power capabilities to the K/B dock to enable improved capabilities. Increased pressures on environmental, energy, and responsiveness to range requirements require upgrade of the float and power for range craft.

BOSINESS AREA CAPITAL PORCHASES JUSTIFICATION (Dollars in Thousands)	CAPITAL F (Dollars in `	CAPITAL PURCHASES (Dollars in Thousands)	SJUSTIFIC	CATION	∢	Budge	ıt Submission FY 1996/1997 Biennial Budget Estimate	Biennial Bu	udget Estir	nate		
B. Component/Business Area/Date DoN/R&D	a/Date			C. Line No.	o. & Item C NSTRUCT L	Description JPGRADE - I	C. Line No. & Item Description L162 CONSTRUCT UPGRADE - BUILDING 25 HAWAII		D. Activity Identification NUWC DIVISION KEYP	Activity Identification NUWC DIVISION KEYPORT	tion	
		FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost	Quant	Unit	Total Cost
Construct Upgrade - Building 25 Hawaii										-	300	300
Narrative Justification: Habitability and fire safety code corrections.	de correctio	કું										

t Submission FY 1996/1997 Biennial Budget Estimate	Line No. & Item Description  D. Activity Identification  NUWC DIVISION, NPT/KPT	FY 1996 FY 1997	Unit Total Unit Total Quant Cost Cost	2720 2625	For the period FY94 to FY97, NUWC will require miscellaneous minor construction projects to maintain and upgrade facilities at the Center.
udget Estimate	D. Activity Identificati NUWC DIVISION, NI			2720	acilities at the Center.
7 Biennial B		FY 1996			d upgrade f
Budget Submission FY 1996/1997	n 1>50 <300				maintain an
A. Budget 9	m Descriptio	995	it Total		n projects to
	ine No. & Itel MINOR COI	FY 1995	ant Cost		roonstructio
STIFICATION	C. Lir		Total Quant		aneous mino
RCHASES JU		FY 1994	Unit		equire miscell
CAPITAL PURCHASE: (Dollars in Thousands)	/Date		Quant		NUWC will a
BUSINESS AREA CAPITAL PURCHASES JUS (Dollars in Thousands)	B. Component/Business Area/Date DoN/R&D		ELEMENTS OF COST	Minor Const > 50 < 300K	Narrative Justification: For the period FY94 to FY97,

	(\$ in Thousands)											
B. Navy/Research & Development	1 0 0 0 1 1 0 0 0 0 1 1 1		! ! ! !	3 -	3002 Ir Sontrol S	L0002 Intrusion Detection System/Access   D. NCCOSC Control System - New Mission	Detection	on System sion	/Access	D. MCCC	)SC	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation			<u> </u>									
Testing												
Equipment											0.009	0.009
TOTAL							:				0.009	600.0

post displaying command, control and alarm information on the NISE West site, Air Force Plant 19 (AFP 19). The current configuration, established from AFP 19. The contractor eliminated its ECC in October 1994. Without an IDS, ACS, and ECC, NISE West cannot adequately protect its government when AFP 19 became a contractor leased/operated facility, forwards alarm (fire and some intrusion) indications to a contractor ECC site, 10 miles Access Control System (ACS), and Emergency Control Center (ECC) at the NCCOSC In-Service Engineering West Coast Division (NISE West). The Navy personnel, provide an audit trail of spaces accessed, rapidly grant or deny permission to enter spaces, and maximize efficiency in permitting resources, nor can it respond properly to an emergency such as a fire. ACS readers are essential to: permit automated access to authorized There is currently no integrated Electronic Security System (ESS) capability including sub-component Intrusion Detection System (IDS), standard system for ACS is the Navy Electronic Badging System swipe card badges. Also, there is no emergency control center/guard dispatch necessary access to personnel.

The proposed procurement will result in increased probability of detection and interception of forced entry into critical spaces at AFP 19, increased protection of government resources, and increased reaction to emergencies.

BUSINESS AREA CAPITAL PURCHASES JU  (\$ in Thousands)	JUSTIFI	STIFICATION						A. FY 199	A. FY 1996/1997 Biennial Budget Estimate	ennial B	udget Est	imate
B. Navy/Research & Development	0 1 1 0 0 1	1 6 6 8 8 8	0 0 1 1 0 0	C. L000	C. L0003 Non-ADP Equipment (> \$50,000, < \$500,000)	Equipmen	it (> \$50	,000, <		b. Nccosc	ည္တ	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation												
Testing											_,_,	
Equipment							VAR		2,704.0	VAR		1,614.0
TOTAL									2,704.0			1,614.0
DESCRIPTION	ol lows:		) 	1 1 1 1 1		1 1 1 1 1 1 1			FY96			FY97
Access Control System/Closed Circuit Television  The Closed Circuit Television System (CCTV) will be installed in Warminster,  fencing entry points for detection of attempted illegal entry. Funding will	nstalled i al entry.	in Warmi . Fundir	. Warminster, P/ Funding will a	A to provise us	vide remot sed to ext	te monitor	ing of s	ensitive CCTV up	520 PA to provide remote monitoring of sensitive spaces, building entrances and also be used to extend the San Diego CCTV upgrade commenced in FY94.	wilding renced in	entrances FY94.	0 sand
  Microelectronic Clean Room Upgrade  Future designs continue to require fabrication of microelectronic circuits in clean room conditions.  Diego is over 20 years old and is deteriorating. It needs to be replaced to maintain clean room condi	microelectr It needs to	onic circ be reple	cuits in a	clean roc aintain c	tronic circuits in clean room conditions. The cuto be replaced to maintain clean room conditions.	ons. The	: current	Microele	270 The current Microelectronic Lab clean room in San itions.	ab clean	room in	0 San
  Wideband High Frequency Channel Simulators  This equipment is necessary to keep the signal and jammer 		independe	ent paths,	and wil	ll enhance	ongoing	research	in Elect	0 as independent paths, and will enhance ongoing research in Electronic Countermeasures programs	intermeas	ures prog	250 grams.
  Mail Mobile  This item will deliver mail over a pre-determined route,		inating t	eliminating the need for messengers.	for messe	engers.				20			0

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	S JUSTIF							<u>.</u>	ri 1990/1997 Biennial		Budget Estimate	imate
B. Navy/Research & Development				) 	03 Non-AD	L0003 Non-ADP Equipment (Continued)	nt (Cont	inued)		D. NCCOSC	os.	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL
Installation												
Testing												
Equipment												
TOTAL												
DESCRIPTION  Compact Antenna Range Reflector Plate and Pedestal This equipment will allow the anechoic chamber located at quieting. Every year the electromagnetic noise level inc		the NCCOSC reases, ther	RDT&E Div	ision to	be used	FY96  265  the NCCOSC RDT&E Division to be used as a compact range which will improve dynamic range eases, thereby reducing the ability to measure sidelobe performance.	act rang	e which w	FY96 265 Mill improvance.	ve dynami	range	FY97 0
Intrusion Detection System equipment									200			0
Electronic Assessment System equipment									250			0
Other Administrative/Operational Equipment Procurements in this category include lathes, other equipment for making tools, machine shop equipment, photocopy machines.	equipmen	t for mak	ing tools	, machin	e shop ec		testing	testing equipment,	557 ., oscilloscopes,		pue	579
Other Scientific/Technical Equipment These requirements vary widely by function and department analyzers, calibration equipment, radar components, and a		Examples inclu	nclude a	lightwav	e signal	592 Examples include a lightwave signal analyzer, data monitoring and recording systems, spectrum	data mo	nitoring	592 and record	ding syst	tems, spe	785 ctrum

BUSINESS AREA CAPITAL PURCHASES JUS	JUSTIFI	STIFICATION						A. FY 199	A. FY 1996/1997 Biennial Budget Estimate	ennial Bu	dget Esti	mate
B. Navy/Research & Development			1 1 1 1 1 1	c. L0005 -	:	Computer Systems Upgrade New Mission	ems Upgr	ade		D. NCCOSC	ပ	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	COST	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	COST	TOTAL	QUANT	COST	TOTAL
Installation												
Testing												
Equipment									352.0	- -		150.0
TOTAL									352.0			150.0
DESCRIPTION/JUSTIFICATION												

replaced with newer, more cost effective ALPHA/VMS computers. This upgrade is required to support the maintenance and reengineering environment for Business NCCOSC RDT&E Division business system "legacy" applications reside on VMS computers. Older, more costly VAX/VMS Production computers have been Systems Production applications on Alpha class computers, necessitated by mandated and required software changes to existing application systems. this support environment must also be compatible with existing VAX/VMS production and maintenance support computers.

The current business systems consist of multiple computers running in a clustered environment. The proposed buy is a system building block upgrade to current computer systems including mass storage. This system would replace existing processors, mass storage, and magnetic tape backup systems. Business Service providers in the areas of Personnel, Acquisition, Security, and Tasking and Planning require this computer as a "production backup" resource.

Benefits include increased processing capability due to increased speeds available with the newer technology, higher capacity and faster access to mass storage for usage that consistently shows I/O processing bottlenecks, and current technology backup systems, either DAI or 8MM, on a faster I/O This procurement will result in reduced costs for power consumption, air conditioning, and hardware maintenance. Due to considerable costs associated with software conversion, no other platforms were considered.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	JUSTIFI	CATION	i i i i i					A. FY 199	A. FY 1996/1997 Biennial Budget Estimate	ennial B	udget Est	imate
B. Navy/Research & Development				- c. L0006 -	!	File and Archive Server	ive Serv	٥		D. NCCOSC	SC	
		FY94			FY95			FY96		_   _	FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL
Installation								1 1 1 1 1 1				
Testing												
Equipment							 		51.0			200.0
TOTAL									51.0			200.0
DESCRIPTION/JUSTIFICATION	_			_		_	— <u>:</u> — :		1	_		

A file and archive server will be used to support consolidation of data storage and archive capabilities of the Naval Command Control and Ocean Surveillance Center, RDT&E Division (MRaD).

capabilities and are planned to take advantage of what technology is available at that time. Planned procurements include hardware to support "on-going" Center. The existing file and archival system cannot adequately support the increasing demands of the user community. The proposed file storage and The NRaD computer center provides file storage and archival service to scientists, engineers, researchers, and administrative personnel at the archival service hardware will provide the means necessary to meet these requirements. These procurements for FYs 1996/1997 will augment existing loading of files from secondary load devices and additional disk storage.

existing data so that additional processing can be accomplished. With projected reduced labor hours, the system is intended to operate without operator The impact of not augmenting the existing capabilities will be reduced processing capability and additional manhours of labor to upload and load intervention.

BUSINESS AREA CAPITAL PURCHASES (\$ in Thousands)	_	JUSTIFICATION	2					A. FY 199	A. FY 1996/1997 Biennial Budget Estimate 	ennial Bu	idget Esti	mate
B. Navy/Research & Development				c. L0007		Database Engine Upgrade New Mission	e Upgrad			b. NCCOSC	ų,	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation					<b></b>							
Testing												
Equipment							VAR		260.0	VAR		380.0
TOTAL									260.0			380.0
DESCRIPTION/JUSTIFICATION												
	s to exis	ting comp	uters used	d to host	a centra	lized corp	orate da	tabase at	the NCCOS	C RDT&E	Oivision (	(NRab).
NRaD uses an existing computer to host a logically cen systems. This database is being incrementally populated. retargeted to use the centralized corporate database. As	ically ce opulated. base. As	ntralized Legacy data is	corporate informatic migrated t	e databas on system to the ce	e. This is that ha intralized	database sid previous	stores da sly indep , the hos	ta used bendently to compute	centralized corporate database. This database stores data used by the business information ed. Legacy information systems that had previously independently stored data are being As data is migrated to the centralized database, the host computer will need increased computing	ness info a are be id increas	ormation ing sed comput	ting
performance and data storage capability.												

FY96 purchases will include additional disk drives to store data and additional processors and memory to support information systems that will then talk to the corporate database. The FY97 purchase is for an additional computer.

							_					
B. Navy/Research & Development				c. L0008		Supercomputer System - New Mission	ystem - h	Lew Missi	1 1 1 1 1	[b. Nccosc	U	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	T0TAL C0ST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation												! ! ! ! !
Testing												
Equipment							Var		1,000.0	Var		1,550.0
TOTAL									1,000.0			1,550.0
DESCRIPTION/JUSTIFICATION	-		_	- !	_		_			_	_	

The NCCOSC RDT&E Division (NRaD) Supercomputer System is an integral part of a secure signal processing facility. NRaD received \$1.4 million in FY 1993 and \$1.0 million in FY 1994 to purchase an Intel PARAGON XP/S and Convex SPP-1 parallel supercomputer systems, Silicon Graphics scientific visualization systems conduct of virtually all science and engineering for the foreseeable future. Increased HPC capability in DOD is needed to raise performance levels in and ATM/SONET high speed networking systems and peripherals. The PARAGON has 25 Gigaflops (billion floating point operations per second) minimum peak Research & Engineering Network. High Performance Computing (HPC) & communications are vital, essential base technologies that will drive or limit the performance; the SPP-1 has 1.6 gigaflops. The systems are used primarily for solving classified scientific problems, investigations and experimental fundamental to progress in scientific and technologic areas of interest to the DOD were assessed. The requirements were found to far exceed current development of embedded system applications (real time, data bases, simulations, signal and image processing and Communications, Command and Control advanced, embedded military computing systems, to pioneer cost reductions in these systems, and to enhance the opportunity for commercialization of computational products by other sectors. This is an initiative by the Office of the Director of Defense Research and Engineering summarized by the "Invitation for Proposals, DOD High Performance Computing Mod Plan (HPC-MP)" of 11 September 1992. In it, specific functions and applications Scientists and engineers at over 40 different RDT&E activities of all branches of DOD have access to the PARAGON via the Defense system, which is a parallel supercomputing extension to the Tactical Advanced Computer (TAC-3). It supports development of parallel tactical complement of DOD long-range goals, readiness, and track record. The subsequent response of NRaD to these requirements was the Convex SPP-1 DOD capabilities. The initial NRaD response to this initiative was the PARAGON system, which was selected based on the following criteria: contribution to DOD mission, synergism with science and technology R&D, technical merit, organizational commitment to HPC, cost efficiency, functions).

BUSINESS AREA CAPITAL PURCHASES JI (\$ in Thousands)	JUSTIFICATION	ATION						A. FY 19	A. FY 1996/1997 Biennial Budget Estimate	iennial B	udget Es	timate
B. Navy/Research & Development	! ! ! ! !	! ! ! ! ! !	! ! ! ! !	c. L0008	•	Supercomputer System (Continued)	ystem	1 1 1 1 1 1 1	1 1 1 1 1 1 1	D. NCCOSC		i ! ! ! !
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	COST	TOTAL	QUANT	COST	TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												
information integration and display technology software using the TAC-3 processors. Other commercial parallel and sequential computers were also considered. However, the SPP-1 meets the current and projected requirements, its computing power cannot be obtained elsewhere for the comparable price, and existing and planned TAC-3 installations in the Fleet are candidates for upgrades to such parallel processing capability.	ire using I projecte in the Fle	the TAC-3	using the TAC-3 processors. Other commercial parallel and sequential computers were also rojected requirements, its computing power cannot be obtained elsewhere for the comparable the Fleet are candidates for upgrades to such parallel processing capability.	ors. Others comput	er commer ing power	cial pare cannot k	e obtain	sequenti ed elsewh	al computere for the spability.	ters were	also rable	

the SPP-1, visualization workstation upgrades, and an archival storage system. In addition, network access to that system and other DoD systems nationwide NRaD SPP-1 system, visualization systems and AIM networking, and the FY95 purchase of additional disks, memory and processing nodes for the Paragon and In FY96 and FY97, funds will be used to increase the current capability of the DoD Paragon System placed at NRaD in FY93, the FY94 acquisitions of the will be facilitated for NRaD scientists and engineers. In FY96 and FY97 parallel processor upgrades, visualization peripherals, high speed networks,

and other system enhancements will be acquired.

The alternative to increasing the capability of the DoD Paragon, the Convex SPP-1, scientific visualization systems and ATM networks at NRaD is to purchase new computer systems, visualization systems and networks to support NRaD projects. This solution would be far more expensive than leveraging the substantial FY93-FY95 NRaD and DoD investments by making additions to the capability of the existing systems.

BUSINESS AREA CAPITAL PURCHASES JUSTI (\$ in Thousands)		FICATION	0 6 1 1 4 4 0	9 1 1 1 1 1				A. FY 1996/1997 Biennial Budget Estimate	./1997 Bie	nnial Buc	dget Esti	mate
B. Navy/Research & Development			0 0 0 1 4 4 4 0	C. L000	C. 10009 - Personal Computer Client Server New Mission	rsonal Comput New Mission	er Clien	t Server		D. NCCOSC	သွင	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	COST	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL
Installation												
Testing									4	·		
Equipment								-	180.0			
TOTAL									180.0	7		
	_ _		_	_ _	_	_ ;	_ [		· 	_ _	_ ;	_

## DESCRIPTION/JUSTIFICATION

The NCCOSC RDT&E Division (NRaD) is building a corporate information system. The current system is many years old. It is of outdated design based on mainframe computers. The information provided is not timely enough to meet today's requirements and is not provided in a form suitable for the use with the high quality inexpensive computer tools that the Personal Computer (PC) revolution has provided. The new corporate information system is based on a layered model progressing from the indivdual to the entire enterprise, where each layer has a distinct wide, even worldwide, capability to communicate, collaborate, and manipulate information. This layered model parallels the physical architecture of the separation of responsibilities and powers. This approach provide the maximum local initiative and control while at the same time has an enterprise ocal Area Networks (LANs), Wide Area Networks (WANs), and client/server environments.

To be purchased in FY96 are workgroups servers to support NRaD corporate management data models and applications, according to NRaD goverance. Other FY96 The new corporate information system is almost complete, based on FY 94-95 procurements. The first user applications are now online but many of the beneficiaries of this new technology, while in possession of desktop computer systems, are not networked in accordance to NRaD's layered-network model. purchases will include network operating server licenses, data storage, tape backup, and user application licenses.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	JUSTIFI	CATION						A. FY 199	6/1997 Bio	ennial B	A. FY 1996/1997 Biennial Budget Estimate	mate
B. Navy/Research & Development				C. L001	C. L0010 - Microfiche System Replacement	crofiche Sys Replacement	tea			D. NCCOSC	os:	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL   COST 	QUANT	UNIT	TOTAL
Installation												<del></del>
Testing												
Equipment												150.0
TOTAL												150.0
The DATAGRAPHICS XLSDO microfiche output system provides a fully automated, high quality microfiche master and duplicates, wet or dry developed, and on-line processing. By FY97, the present system will be worn due to heavy production demands and age. Maintenance will be at least two (2) times more per week than for the proposed system. The on-line system is controlled by a PC with increased software enhancements. The proposed system will easily be able to handle increased production requirements due to increased workload (mega-center/consolidation). The proposed PC driven system, with software enhancements that an operator can design and control, will not require a manager to operate the system.	rovides Will be ystem is to incre Will no	a fully ar worn due t controlle assed workl it require	utomated, to heavy p ed by a PC load (mega a manager	high que production with ir r-center/ to oper	of ity micron demands on demands or creased so consolidariate the si	ofiche ma and age. oftware e tion). T	Mainter and Mainternancements he prop	duplicat snance wil ents. The	es, wet o   be at     proposed   iven syst	or dry de east two la system cem, with	master and duplicates, wet or dry developed, . Maintenance will be at least two (2) times morenhancements. The proposed system will easily be The proposed PC driven system, with software	more y be

BUSINESS AREA CAPITAL PURCHASES JUSTIF (\$ in Thousands)	RCHASES JUSTIFI	FICATION						A. FY 1996	/1997 Bie	ennial B	A. FY 1996/1997 Biennial Budget Estimate	mate
B. Navy/Research & Development				c. L0011	•	Computer Upgrade for NFAS New Mission	ade for	NFAS		D. NCCOSC	၁ၭ	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation			<del></del>									
Testing												
Equipment							- -		352.0			
TOTAL									352.0			
DESCRIPTION/JUSTIFICATION	-		-	-					_			_

NCCOSC activity, with its annual budget of greater than \$1.58. This computer upgrade will increase computing and data access/storage capacity to allow This computer upgrade provides improved computing capability for the NCCOSC Finance and Accounting System (NFAS), which supports the entire continued processing by NFAS.

continue to grow as more and more corporate financial transactions and historical data are required. This increased volume will further degrade performance. will not be able to conclude daily transaction processing within a 24 hour period, and will suffer further degradation in the timeliness and accuracy of its The existing computer supporting NFAS is an older machine that does not utilize the latest technology. Without this upgrade, it is expected that NCCOSC Some jobs run in excess of eighteen (18) hours. The NFAS system is in its second year of operation. Over time, the NFAS data volume will critical offical corporate financial information. This procurement would replace the existing machine in FY 1996 with a new machine that will have NFAS has a set weekly and monthly operations schedule. During periods of peak activity, the existing computer supporting the system becomes improved computing performance and lower maintenance costs. NCCOSC has entered into a partnership with the Defense Finance and Accounting Service to continue the operation and maintenance of NFAS until an interim/ it would be replaced within three years by a standard DoD accounting system. Current indications are that the time frame for a standard system is extending, migratory financial system is selected, at which time NCCOSC will use this standard system. When NFAS was implemented in October 1993, it was expected that and that there is no estimated implementation date for such a system.

BUSINESS AREA CAPITAL PURCHASES JUST (\$ in Thousands)		FICATION						A. FY 1996/1997 Biennial Budget Estimate	/1997 Bid	ernial Bu	dget Esti	mate
B. Navy/Research & Development				c. L0015 -	:	Fiber Optics Local Area Network New Mission	cal Area	Network		D. NCCOSC	, ,	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	COST	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	COST	TOTAL	QUANT	UNIT	TOTAL COST
  Installation												
Testing												
Equipment							VAR		430.D	VAR		435.0
TOTAL									430.0	· .		435.0
										-		

high bandwidth, high speed, multi-media (digital, voice, video) internetworking among NCCOSC RDT&E Division (NRaD) Command and Control Department lab The "Command and Control Advanced Research Network" (CCARnet) will be a backbone network service for classified (up to SECREI) and unclassified spaces located throughout Point Loma and also at offsite facilities. This is a continuation of an FY 94/95 effort.

routers, ATM switches, net management stations, INFOSEC encryption devices, LAN interfaces and other LAN hardware and software. The fiber plant provides This facility will consist of a fiber optic cable plant (multiple strands for singlemode and multimode fibers), fiber optic patch panels, LAN bridges/ the capability to run point-to-point connectivity, FDDI, Ethernet, and ATM, and will accommodate various network protocols such as TCP/IP, DECnet, XTP/SAFENET and Novell IPX/SPX. The Seaside Internet, a Command and Control Complex fiber network, will be integrated into this network.

- a) In-house labor for network design, procurement and integration of devices
- b) Network interfaces will be used to connect workstations, computers, ethernet networks, FDDI networks and ATM devices to this network.
  - c) Fiber Optic Plant will provide fiber connectivity (fiber cable, patch panels, etc.) between laboratories.
    - d) Protocol testers will support high speed network technology and protocol research on AIM and FDDI networks.
- e) Network management encompasses the hardware and software to create a consolidated Classified/Unclassified network management capability, for LANs and WANs. This will be important for joint demonstrations.
  - f) INFOSEC Equipment will be anticipated NSA-approved devices that will protect high speed FDDI and ATM networks.
- g) Multimedia/Teleconferencing equipment will support technology research in putting multimedia and videoteleconferencing capabilities over C2

	BUSINESS AREA CAPITAL PURCHASES JUSTI (\$ in Thousands)	ses Justi	FICATION						A. FY 195	A. FY 1996/1997 Biennial Budget Estimate	ennial B	udget Est	timate
· <del>-</del>	B. Navy/Research & Development				C. L0015		Fiber Optics Local Area Network (Continued)	ocal Area	Network		D. NCCOSC	ပ္တ	
<u></u>			FY94			FY95			FY96			FY97	
	Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL COST
_=-	Installation												<u> </u>
	Testing											. <u> </u>	
	Equipment												
059	TOTAL										· ·		
<u>- = = -</u>	h) High Performance Workstations will be new technology work network and communications performance using C2 applications	logy wor	kstations is and tec	tations such as and technology.	TAC-4 or	high perf	stations such as IAC-4 or high performance computers.	mputers.	They will	They will be used to evaluate	to evalu	ate	_
	The alternative to this network is to continue using current communication capability because a computer can only talk to rewiring and reconfiguration in order to link computers. Wh cases, is not transferred at all. This process wastes time equipment required (hardware interfaces for each interconnec	ig currery talk inters. We take time the time time time time time time time tim	ent communi to the one Where the me and mone	central system ca yy. The catem) and	hich rely computer nnot be r ontinued o	on point to which econfigure operation interconne	communications which rely on point-to-point wiring. Point-to-point wiring provides limited the one central computer to which it is hard-wired. The current system requires constant here the system cannot be reconfigured, information must be transferred manually or in some and money. The continued operation of the current system is also expensive both in terms of ting system) and labor to interconnect a constantly changing system configuration.	wiring.  -wired. mation mus  rrent systantly ch	Point-to-point wiring provides limited The current system requires constant it be transferred manually or in some tem is also expensive both in terms of langing system configuration.	point wiri nt system sferred me so expensi stem confi	ing provires requires inually o ve both guration	des limit constant r in some in terms	م الو
_≪_	A LAN will enable efficient communication among all computer	compute	ers on a n	etwork th	us allowin	ng better	s on a network thus allowing better communication, higher efficiency, and monetary savings	tion, hig	her effici	iency, and	monetar	y savings	<b>.</b>

B. Navy/Research & Development				c. L0016 -		Virtual Reality System	System			D. NCCOSC	U	
					New	New Mission						
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL   COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL
Installation												
Testing								<b>_</b>				
Equipment			· 				VAR		127.0	VAR		100.0
TOTAL									127.0			100.0

Naval Command and Control because of a lack of computer and Head Mounted Display (HMD) equipment capable of generating and displaying complex virtual tactical environments in real time and at resolutions sufficient to support tactical C2 data symbology. Items to be bought include:

- Reality Engine computer - needed to provide maximum computer throughput speed, and texture handling capability;

SimEye color HMD - a high resolution, color HMD with see-through optics capability is essential to display sufficient C2 data details;

Software - needed to model every object that will be displayed in the interactive 3-D graphical virtual tactical environment;

Voice Recognition System - essential as a primary computer interface since the user may not be able to see objects in the real environment (like keyboards);

Tracking and Pointing System - essential for computer tracking of the user's head so that the graphic computer can present the HMD with the proper imagery; Multi-channel 3-D Audio Display - essential for presenting 3-D spatialized sounds corresponding to tactical information sources in the virtual environment.

known to adversely impact the validity of the performance data acquired, and have even been shown to induce operator malaise similar to simulator sickness. Systems that present such complex environments at lower resolution and slower response times are All of these components are essential to the creation of a system that is capable of generating and presenting an integrated high resolution, No other suite of hardware and software is capable of this high performance at a lower cost. responsive tactical 3-D C2 Virtual Environment.

This facility will support multiple projects to provide advanced interface for C2 simulations and models, thereby saving on duplication of hardware and decreasing virtual environment development time and costs.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	S JUSTIFI	CATION						V. FY 199	A. FY 1996/1997 Biennial Budget Estimate	emial Bu	udget Est	imate
B. Navy/Research & Development				C. L0017 -	:	Document Imaging System New Mission	ing Syste	E		[b. NCCOSC	SC	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	COST	T0TAL C0ST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation									7.0			
Testing											-	
Equipment									107.0			
TOTAL									114.0			
DESCRIPTION/JUSTIFICATION										# # # # # # # # # # # # # # # # # # #		

The system will provide a document/image management capability that will include scan, Optical Character Recognition (OCR), index, store, retrieve, and print functions. The system will be capable of evolving or being integrated into a fully collaborative network system in subsequent increments with video teleconferencing, workflow management, group authoring and decision support capabilities.

diverting employees away from productive work. Documents occasionally get lost or physically damaged. Also, they require a large amount of valuable secure space for storage, resulting in cramped working conditions. This new system will provide better document access, improved document integrity, Currently, documents needed for work, such as program management and systems development and maintenance, take a long time to route and retrieve, and reduced storage space. Subsequent increments to the system will reduce travel hours and costs, and improve engineering support. There are no comparable alternatives to purchasing the document imaging system. Microfiche, the most obvious alternative, would only slightly lessen many of the problems that currently exist. It is important to note that document retrieval is often performed by direct labor workers such as engineers so this shortfall has a significant impact on productivity. Switching to a document imaging system would, therefore, save time and money and increase productivity.

BUSINESS	JUSTIFI	CATION						1. FY 1996	A. FY 1996/1997 Biennial Budget Estimate	mial Buc	dget Estin	ate
B. Navy/Research & Development	 		0 4 1 0 0 4 4	C. L001	C. L0018 - Upgrade to Time Domain Measurement Range - Replacement	- Upgrade to Time Range - Replacement	e Domair t	Measurem	•	D. NCCOSC	9	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation												
Testing												
  Equipment									100.0			
TOTAL									100.0			
DESCRIPTION/JUSTIFICATION	; ; ; ;	0 9 9 0 0 1 1	1 1 2 3 3 3 0 1	1 1 1 1 1	• • • • • • • • • • • • • • • • • • •	9 1 6 0 9 9 9	; ; ; ;	9 9 1 9 9 9 9	9 9 9 9 9 9 9	; ; ; ;	• • • • • • • • • • • • • • • • • • •	9 1 1 9 9 9

performing measurements. Metallic components on the topside of the BWS cause high clutter to target ratios and interactions which make range calibration and measurements more difficult and time consuming. Moreover, the present feedpoint on the BWS has deteriorated with time, and needs to be replaced with The current condition of the NCCOSC RDT&E Division (NRAD) Bounded Wave Simulator (BWS) of the Time Domain Measurement Range (TDMR) is not optimal for a newer design which would provide a better impedance match to the rest of the BWS. These changes would provide a better measurement capability for EMP/EMC evaluations on ship models and resonant radar cross section measurements being used in impulse radar technology.

The upgrade will include: (1) the replacement of various parts of the BWS in order to increase the range's capability to make electromagnetic pulse/electromagnetic compatibility (EMP/EMC) and reasonant radar cross section measurements, (2) the transfer of software used to make the above measurements from an outdated LSI 11/23 to a personal computer.

Purchase plans for FY96 are as follows:

replace wires and turnbuckles on top of BWS with non-conductive materials. 8

B) replace feedpoint on the BWS C) new software to transfer ENP/EMC programs from LSI 11/23 to PC.

BUSINESS AREA CAPITAL PURCHASES JUST (\$ in Thousands)	S JUSTIFI	IFICATION						A. FY 19	A. FY 1996/1997 Biennial Budget Estimate	iennial	Budget E	stimate
B. Navy/Research & Development				C. L0019 - Access Control System (Warminster)	Access Ne	s Control Sy	ystem (War	minster)		D. NCCOSC	os:	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation		<del>-</del>		· <b>—</b>								
Testing												
Equipment							Var		200.0			
TOTAL									200.0	·		
	_	_		_			_	_	•			_

releases the electronic door strike allowing that person to open the door or gate. This type of access control eliminates the need for an individual to The Access Control System (ACS) procurement is a series of badge or card readers and keypads connected to a computer and/or micro-processors that allow a person processing a valid badge to access a space, building, or gate without other human involvement. When the ACS reads a valid badge it visually control access to the area in question, yet it provides a central record of activity that can be audited.

without using guards. Currently guard service is provided by the Naval Air Warfare Center Aircraft Division, which is scheduled to relocate to Patuxent The Warminster site to be assumed by the NCCOSC RDT&E Division (NRaD) currently has no ACS to control access to the facility, buildings, or spaces River starting in FY 1995. In FY 1995 NRaD will assume the guard service responsibility.

eliminating duplicative badging while saving approximately 1.5 guard workyears (or approximately \$200K) which would otherwise be required to control access. Extension of the capability installed at NRaD San Diego to the Warminster site will ensure that a single badge may be used for access throughout NRaD,

installed in San Diego. The former method would either place too great a burden on existing government manpower or cost too much in contractor support. Alternatives considered included using stationary guards or receptionists to control access and using an alternate ACS not compatible with the ACS The latter technique adds administrative duties to the existing badging process and results in multiple badges being held by employees.

DESCRIPTION/JUSTIFICATION

BUSINESS AREA CAPITAL PURCHASES (\$ in Thousands)	URCHASES JUSTIFICATION	TIFICATI	N					A. FY 1996/1997 Biennial Budget Estimate	76/1/96	Biennial	Budget	Estimate
B. Navy/Research and Development				<u>.</u>	022 Data E New Mission	C. L0022 Data Base machine - New Mission	machine			D. NCCOSC	os.	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation										-	10.0	10.0
Testing											10.0	10.0
Equipment											80.0	80.0
TOTAL											.·	100.0
EXPLANATION/JUSTIFICATION	•											 

with NISE West's mission critical projects, and to provide the access necessary for the management of these programs, a single data base machine is required. Requirements for this machine include the use of the new open system architecture environment, which allows for the right-sizing Currently, the NCCOSC In-Service Engineering West Coast Division (NISE West) corporate data base is spread across three systems (one using Oracle, one using IBM VSAM, and one using a Wang data base). In order to maintain the financial, equipment, and personnel records associated of projects and equipment support costs. Additional accesses are required so that the rapid identification and movement of mission critical resources can be accomplished.

data will continue to grow. Fleet needs will require 24 hour a day access to project data. Existing NISE West systems do not currently provide As the move to rapid response on projects and the need to access data from anywhere in the country continues, the requirement for access to this level of access. The proposed procurement of the data base machine will meet this requirement, while also reducing contractor support by approximately two workyears (\$80K).

The proposed procurement meets the functional requirement, is less costly, and will also result in the elimination of mid-size to upgrade each of the systems to provide the access required. This is more costly, and more importantly would not result in a common NISE West The only alternative to the proposed procurement is to remain with the existing hardware/software database suites and procure new hardware data base system. obsolete computers.

BUSINESS AREA CAPITAL PURCHASES (\$ in Thousands)	ASES JU	PURCHASES JUSTIFICATION	NO.					A. FY 199	6/1997 B	iennial	A. FY 1996/1997 Biennial Budget Estimate	stimate
B. Navy/Research & Development		,			LOO23 - Doc New Mission	L0023 - Document Management System - New Mission	anageme	nt System	<u>.</u>	D. NCCOSC	၁ՏԸ	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL
Installation								· <b>—</b>				
Testing												
Equipment								135.0	135.0		135.0	135.0
TOTAL									135.0			135.0
DESCRIPTION/JUSTIFICATION						_	-		6 0 0 1	- !	-	
The NCCOSC In-Service Engineering West Coast Division (NISE West) needs to provide real time information on mission projects in order to	Divisio	on (NISE	West) nee	ds to p		eal time	informa	tion on m	nission p	rojects	in order	\$ :
capability while also reducing manpower requirements.	ents.	Cannot	eet tnis	require		he propos	ed docu	ment mana	gement s	ystem w	The proposed document management system will provide this	de this

Incoming documentation is presently being tracked through manual means, as the continued drawdown of personnel results in fewer and fewer people available to do the same amount of work. It will become essential that project related documentation be Project documents which require real time access include tasking, status, review, analysis and study documents, technical manuals and other technical reports. Currently, the technical manuals and other technical reports are maintained in a document storage facility, while all

stored in a manner that will support reviews of tasking vs. outgoing responses vs, support documents relative to tasks and sub-tasks.

The proposed systems will allow such storage and retrieval throughout NISE West and NCCOSC.

other documents are maintained in the project offices. The automation of the document storage function will result in quicker and easier retrieval, less costly storage, and reduced manpower requirements.

The proposed procurements will result in the reduction of two manyears of effort currently required.

BUSINESS AREA CAPITAL PURCHASES JUS (\$ in Thousands)	ES JUSTIF S)	TIFICATION	; ; ; ; ; ; ;					1. FY 199	A. FY 1996/1997 Biennial Budget Estimate	emial Bu	dget Est	mate
B. Navy/Research & Development				c. 10025		Database License for CLUSTER -	e for CLI	JSTER -		D. NCCOSC	ပ္တ	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL
Installation						<u> </u>						! ! ! !
Testing												
Equipment			<u> </u>				·		100.0			220.0
TOTAL									100.0			220.0
DESCRIPTION/JUSTIFICATION	- :	- 1		-		_	- i		1 1 1 1 1		- :	

These procurements are for software licenses required in the re-engineering of business systems. Additionally, user licenses are required for the implementation of the re-engineered business applications which will be capable of running in an Oracle Relational DataBase Management System (RDBMS) environment. The NCCOSC RDT&E Division (NRaD) is re-targeting information systems to a centralized corporate database. Systems are being re-engineered to interface with a corporate database running on commercial RDBMS software (Oracle).

improvements and products required to host the re-engineered applications in a new computing environment. Additionally, as legacy information systems are As the computing environment for production re-engineered systems evolves, new software licenses are required to take advantage of technological re-engineered to access the NCCOSC corporate database, the number of user licenses will need to be upgraded for access to corporate data.

Acquired software licenses will primarily support a Data Bridge Application that provides an interface between legacy information systems and the NCCOSC corporate database.

CAPITAL PURCHAS		1FICATION						1. FY 199	A. FY 1996/1997 Biennial Budget Estimate	ennial Br	udget Est	imate
B. Navy/Research & Development	 	! ! ! ! ! ! !	1 1 1 1 1 1 1	c. L0028 -	.8 - Date	Data Warehouse - New Mission	Zer -	fission	; ; ; ; ; ;	b. Nccosc	SC	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	COST	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST
Installation												
Testing												
Equipment									100.0			
TOTAL									100.0			

DESCRIPTION/JUSTIFICATION

The FY 96 procurement is for a Data Warehouse System and related software, which was started as a FY95 project.

A data warehouse is required to store and manage summarized corporate NCCOSC data for use by Executive Information Systems (which facilitate access to required to structure data for storage in the data warehouse. Required software for data warehousing includes a Warehouse Manager, MetSource Manager, and the data warehouse, the repository for extensive financial and strategic planning data for past, current, and future years). Additional software will be summarized, and derived data, permitting trend analysis and forecasting. The latter types of data require a different type of storage mechanism, called Relational Database Management System. The types of data required to support decision making include not only operational data, but also historical, data warehousing. A data warehouse provides the foundation for Executive Information Systems (EIS) and Decision Support Systems (DSS).

available for ad-hoc EIS and DSS queries. These queries will provide NCCOSC management will additional tools to manage the geographically dispersed 5,000+ Executive Information Systems are used by upper management to predict and analyze, in an ad-hoc manner, past corporate trends and to help plan for the future. Decision Support Systems are used by middle and upper management as well as management analysts to review past trends and to predict the future. This new capability of data warehousing will allow NCCOSC corporate management to store the summarized yearly data into the warehouse so that it is employee NCCOSC organization in a more efficient manner.

1. Nowly Research & Development	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	S JUSTIFI	CATION						A. FY 19	FY 1996/1997 Biennial Budget Estimate	emial B	udget Est	imate
UNIT   TOTAL   UNIT   U	B. Navy/Research & Development				C: 100	T T	The Shelf 00, < \$10	Softwar 0,000)			D. NCCO	sc	
UNIT   TOTAL			FY94			FY95			FY96			FY97	
tion systems to use a centralized corporate database. Software tools are required to support to "serve" software applications across the corporation. Software licenses from the commercial rolls software provides the capability to support more users with only a few software packages.    195	Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
to "serve" software applications across the corporation. Software licenses from the commercial rolls software provides the capability to support more users with only a few software packages.    195	Installation							<b></b>					1 
tion systems to use a centralized corporate database. Software tools are required to support 195 to "serve" software applications across the corporation. Software licenses from the commercial 195 to "serve" software applications across the corporation. Software licenses from the commercial 195 to "serve" software applications across the corporation. Software licenses from the commercial 195 to "serve" software provides the capability to support more users with only a few software packages.    AX machines will provide an English language interface to the corporate database. This will nd produce reports without programmers.    Electonic Documentation System will maintain compatibility with software in use at NRab and 1997.	Testing												
to "serve" software applications across the corporation. Software licenses from the commercial r. This software provides the capability to support more users with only a few software packages.    195	Equipment							VAR		829.0	VAR		347.0
FY96  tion systems to use a centralized corporate database. Software tools are required to support  195  to "serve" software applications across the corporation. Software licenses from the commercial  This software provides the capability to support more users with only a few software packages.  594  AX machines will provide an English language interface to the corporate database. This will ad produce reports without programmers.  Electonic Documentation System will maintain compatibility with software in use at NRab and all copy.	TOTAL									829.0		<u> </u>	347.0
FY96  From systems to use a centralized corporate database. Software tools are required to support 195  to "serve" software applications across the corporation. Software licenses from the commercial 195  This software provides the capability to support more users with only a few software packages.  AX machines will provide an English language interface to the corporate database. This will nd produce reports without programmers.  Electonic Documentation System will maintain compatibility with software in use at NRaD and 10 copy.	DESCRIPTION		1 1 1 1	i 1 1 1 1 1	-	-		-	-	- !	-		
FY96  Figure 1 ion systems to use a centralized corporate database. Software tools are required to support 195  to "serve" software applications across the corporation. Software licenses from the commercial 195  This software provides the capability to support more users with only a few software packages.  AX machines will provide an English language interface to the corporate database. This will 1970 produce reports without programmers.  Electonic Documentation System will maintain compatibility with software in use at NRaD and 1 copy.	NCCOSC's Off The Shelf Software requirements are as	follows:											
to "serve" software applications across the corporation. Software licenses from the commercial r. This software provides the capability to support more users with only a few software packages.  So4  AX machines will provide an English language interface to the corporate database. This will a produce reports without programmers.  Electonic Documentation System will maintain compatibility with software in use at NRaD and copy.	A) Software Case Tools  The NCCOSC RDT&E Division (NRaD) is retargeting infor  information systems maintenance.	rmation	systems t	o use a c	entraliz	ed corpor	ate datab		ftware to	FY96 40 ols are re	equired t	to suppor	<b>E</b>
594  AX machines will provide an English language interface to the corporate database. This will no produce reports without programmers.  Electonic Documentation System will maintain compatibility with software in use at NRaD and solve.	B) Standard Corporate Software   The corporate support structure provides the capabili   sector allow software applications to reside on a ser	0	serve" so his softw	ftware ap	plication des the	ns across capabilit	the corp y to supp	oration. Ort more		195 e licenses th only a	from the	ne commer tware pac	
/AX machines will provide an English language interface to the corporate database.  Independent of the corporate database.  Electonic Documentation System will maintain compatibility with software in use at all copy.	C) Other Administrative/Operational Software									294			112
Electonic Documentation System will maintain compatibility with software in use at NRaD al copy.	Natural Language software to be installed on SUN/4 ar allow administrative assistants to query the database	nd VAX me	achines w	ill provi	de an En out prog	glish lan rammers.	iguage int	erface t	o the cor	porate dat	abase.	This wil	_
	Upgrade of Composition and Graphics System Software of other DoD and Navy facilities required to provide dis		tonic Doc Py.	umentatio	n System	will mai	ntain com	patibili	ty with s	oftware ir	use at	NRaD and	

BUSINESS AREA CAPITAL PURCHASES JU	JUSTIF	STIFICATION						A. FY 19	A. FY 1996/1997 Biennial Budget Estimate	ennial B	udget Est	imate
B. Navy/Research & Oevelopment				C. L0024   (c		Off The Shelf Software \$50,000, < \$100,000) ontinued)	oftware ,000)	ı		D. NCCOSC	၁၄	
	_	FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL
Installation												•
Testing												
Equipment												
TOTAL												
DESCRIPTION		1 1 2 4 1 0	1 0 1 2 8 8 8									
  Executive Information System Software is required to support summarized, historical, and detailed information needs of Center management.  software will be purchased to support this requirement.	support t.	summarize	d, histor	ical, an	d detaile	d inform	ition nee	ds of Cer	iter manag		Commercial	
  Site licenses for improvements to the NCCOSC Communication Internet software will be purchased in FY 1995	ation In	ternet so	ftware wi	nd ed 11	rchased i	n FY 1995	. •					
  Document routing/retrieval software will be purchased in    -	in FY 1996	996.										
									1			

	C. LO030 Videoteleconferencing System - New Mission  FY95  FY95  FY95  OUNIT TOTAL OUNIT COST  OUNIT TOTAL OUNIT COST  THE NCCOSC In-Service Engineering East C	conferencing	ing System - FY96 CUANT COST	101AL COST 2399.0	D. NCCOSC	COST COST COST COST COST COST COST COST	TOTAL COST
Element of Cost  allation  ing  pment  TOTAL  TOTAL  ing  the expansion of current Video/Electronic Boardroom capabilities planned for the directly support the Command as it executes the BRAC ordered transition from fwing the organization established under BRAC to remain productive through avoic	FY95 UMIT COST COST COST COST COST COST COST COS	- <del></del>	FY96 INT COST	TOTAL COST 3399.0	QUANT	UNIT COST	TOTAL COST
Element of Cost QUANT COST COST   QUANT   QUANT   TOTAL   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST   COST   QUANT   COST	UANT COST COST COST COST COST COST COST COS		UNIT COST	TOTAL COST 3399.0	QUANT	COST COST COST COST COST COST COST COST	TOTAL COST
ing  TOTAL  TOTAL  The expansion of current Video/Electronic Boardroom capabilities planned for the directly support the Command as it executes the BRAC ordered transition from fung the organization established under BRAC to remain productive through avoice.	NCCOSC In-Servi			399.0	e V		179.0
ing  TOTAL  TOTAL  The expansion of current Video/Electronic Boardroom capabilities planned for th directly support the Command as it executes the BRAC ordered transition from fung the organization established under BRAC to remain productive through avoic	NE NCCOSC In-Servi			399.0	N N N N N N N N N N N N N N N N N N N	Head	179.0
The expansion of current Video/Electronic Boardroom capabilities planned for th directly support the Command as it executes the BRAC ordered transition from fully the organization established under BRAC to remain productive through avoic	NE NCCOSC In-Servi	>		399.0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Heado	179.0
TOTAL  The expansion of current Video/Electronic Boardroom capabilities planned for th directly support the Command as it executes the BRAC ordered transition from fully the organization established under BRAC to remain productive through avoid	NCCOSC In-Servi			399.0		Theada	
The expansion of current Video/Electronic Boardroom capabilities planned for th directly support the Command as it executes the BRAC ordered transition from fully the organization established under BRAC to remain productive through avoid	ne NCCOSC In-Servi	-	-			Theador	179.0
travelling. Without this system, the cost of managing the BKAC established MISE Ea	rdered transition from four separate work sites to the consolidated facility in Cha productive through avoidance of per diem and other travel costs and lost worker tim BRAC established NISE East organization will be significantly higher than budgeted.	ce Engineer sites to t and other t	ing East Coarde consolidare consolidare	st Division ted facility and lost won ther than by	(NISE Easy in Charl	eston, S while	quarters S.C. by
NISE East began in FY95 to establish a Video Teleconferencing (VTC) Network along with an Electronic Boardroom Facility. The network will support NISE East Charleston and its detachments at Norfolk, VA; St. Inigoes, MD; and Washington DC. The network will eliminate time-comsuming cross reference of available air time facilities. The network will also allow audio/video connections as a network node located in Charleston. The advantages of the network will be realized in travel and per diem cost avoidances. Productivity savings will be result from minimizing travel due to numerous simultaneous "on the air" meetings.	ong with an Electronic Boardroom Facility. The network will support NISE East The network will eliminate time-comsuming cross reference of available air node located in Charleston. The advantages of the network will be realized ninimizing travel due to numerous simultaneous "on the air" meetings.	onic Boardr l eliminate tharleston. due to nume	oom Facility time-comsum The advanta	. The netwing cross ruges of the random the random was not the random with the random was seen the random the	The network will support NISE East cross reference of available air of the network will be realized bus "on the air" meetings.	support N of availa	ISE Eas ble air alized
The system will consist of the following items:							
Digital Access Control System Infrared wireless remote control Multi Control Unit	Į			Databeams			
Video projection capabilities White boards with hard copy and electronic copy capabilities Front/rear projection screens Multi Channel Audio System	nd electronic copy	, capabiliti	8	Overhead/document cameras and lights	ocument c	ameras an	d Light
The current Video Teleconferencing Facility Will recieve additional equipment to incorporate greater system configurations.	to incorporate gre	eter system	configurati		The NISE East studios will	studios W	ij

BUSINESS AREA CAPITAL PURCHASES JUSTI (\$ in Thousands)		FICATION						A. FY 1996/1997 Biennial Budget Estimate	6/1997 81	ennial Bu	dget Est	imate
B. Navy/Research & Development	 	1 1 1 1 1 1 1	1 1 1 1 1 1 1	  c. 1003( 	) Videote New Missi	C. L0030 Videoteleconferencing System - New Mission (Continued)	ncing Sys	tem -	! ! ! !	D. NCCOSC	ن ن	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	COST	TOTAL	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation												
Testing						·						
Equipment												
TOTAL									•			

The Digital Access Control System (DACS) will be used in the current Charleston studio to enable the configuration of the calls, and will also be used for network control with the additional studios and equipment. The network would be inflexible without this vital piece of equipment. The DACS will be used to allow network connections to be made at variable bandwidths to various sites on an on-demand basis. This will provide the best possible use of the network trunks and allow connections to various sites operating at various bandwidths.

capabilities will expand the "on site" effect as "live" training, demonstrations and meetings take place.

allows the configuration of all VIC calls and can functionally carry out the setup of several meetings at once. This equipment is essential to the operation of the network. It is the main focal point for multipoint conferences and studio scheduling. Its purchase is vital, for without it the network cannot meet The network will be controlled from the Charleston site. This control will be managed via the DACS and a Multipoint Control Unit (MCU). This equipment its requirements. The MCU will allow the elimination of time-consuming schedule cross-referencing and allow all NISE East personnel to increase their productivity by reducing travel time while also reducing travel and per diem costs.

NISE East currently has a video studio in which the analog and video signals are digitized and compressed. This signal is sent thru a T-1 circuit to the can then be transmitted via digital circuits. The Codec has features built in such as picture in picture and stacked screen. There are also ports built in network hub. The Codec is the single most vital piece of equipment because it converts the analog video and audio signals into a digital data stream which to allow other data to be embedded in the data stream and transmitted concurrently with the audio and video signals. This equipment is essential to the operation of any cart type video system.

BUSINESS AREA CAPITAL PURCHASES JUSTI (\$ in Thousands)	SES JUSTIFI	FICATION						A. FY 19	A. FY 1996/1997 Biennial Budget Estimate	ennial Bu	dget Estimate	imate
B. Navy/Research & Development				C. L003(	Videote New Miss	C. L0030 Videoteleconferencing System - New Mission (Continued)	ncing Sys	ten -		D. NCCOSC	, ,	
		FY94			FY95			FY96		-   -	FY97	
		- UNIT	TOTAL		UNIT	TOTAL		UNIT	- TOTAL		INS	TOTAL
Element of Cost	QUANT	COST	COST	QUANT	COST	COST	QUANT	COST	COST	QUANT	COST	COST
Installation		, ,										
Testing												
Equipment						· 					 	
TOTAL										——	 	
	_	_								· -	_	

The Databeam is a high resolution graphics system that allows graphics (such as a brief or report) to be viewed and manipulated during a video conference. during a conference. This function is carried out transparently to the attendees. The databeam scanner allows documents to be scanned and hardcopy files to This system allows for viewing of graphics during a conference. An additional feature of the Databeam is the ability to transfer hardcopy or disk files be transferred to another studio which also has a databeam.

NISE East will be establishing several audio systems. The equipment will vary by site based on their requirements. Stabilizers, equalizers, speakers, microphone systems, mixing consoles, and amplifying equipment will be the basis of the audio system installations. This equipment will support the VTC/ Electronic boardrooms and any additional remote requirements. Front/Rear projection screens allow a clearer resolution of the intended materials to be viewed. In-wall electrical screens create the best presentation abilities. These screens allow advantages such as eliminating projector noise and not having a projector beam, therefore eliminating the fuzzy appearance on the screen while also increasing VTC seating capacity.

advantage is the wide screen coverage on the front/rear screens that the projector provides. Fan noise is not heard if the projector is mounted on the ceiling Video projectors allow high resolution computer graphics and data to be displayed via the front/rear projection screens. This product is a necessity, as and manipulated by remote control. This gives a presentation a flawless quality and allows viewers to concentrate solely on the presentation materials. it is compatible with most currently available computers. By recognizing the frequencies of an input signal, precise images can be displayed. Another

B. Navy/Research & Development							<u>-</u>					
				  c. L0029 	) - Teleco (> \$50,00	C. L0029 - Telecommunications Equipment	ons Equip ,000)	ment -		D. NCCOSC	)SC	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation												
Testing												
Equipment						•	VAR		285.0			0.0
TOTAL									285.0			
NCCOSC's telecommunications requirements can be broken down		s follows:							FY96			FY97
  A) Scientific/Technical Equipment  State-of-the-art High Frequency (HF) communications equipment  converter/SHF/SAT will allow NRaD to keep pace with the lates		ncluding commercia	power am I equipm	plifier/m ent and r	nicrowave elationsh	including power amplifier/microwave power devices, and X-band down t commercial equipment and relationship to Navy applications.	ices, and y applica	X-band c	90 Tayon			0
  B) Phone switches - upgrade from analog switches to ISDN swit	switch	ches (3)							195			0
		1			1							

B. Navy/Research & Development											
			C. L0034	:	Radio Frequency Sensor Laboratory New Mission	Sensor La	boratory		D. NCCOSC	200	
		FY94		FY95			FY96			FY97	
Element of Cost	QUANT CO	UNIT   TOTAL COST   COST   COST	IL QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST
Installation		<del></del>									. — —
Testing											
Equipment				<del></del>				280.0			
TOTAL		<del></del>	<del></del>	<del></del> _	<del>_</del>			280.0			
DESCRIPTION  Construction of a second story is necessary to enable the development of a radio frequency (RF) sensor facility to support NCCOSC RDIZE Division tasks.  Construction of a second story is necessary to enable the development of a radio frequency (RF) sensor facility to support NCCOSC RDIZE Division tasks.  Currently there is not sufficient office and laboratory space for personnel supporting RF sensor programs scut as Combat Direction finding, Outboard, ships Signal Exploitation Equipment (SSEE), and Consolidated Outboard Logistics Upgrade (COBLUCTENT).  Logistically separated, and personnel must commute between work areas. The second story addition will allow program personnel and the RF sensor laboratory to be consolidated in one area, within walking distance of the RF Sensor Anechoic Chamber and Sensitive Compartmental Information (SCI) facilities.  Construction of a deck not pof the second story will permit an unrestricted bay and ocean view to be used for development of the RF front-end components used for tackical cryptological systems. The facility itself will cost \$250K, with \$30K for design, Supervision, Inspection and Overhead (SIOH), and the fee for the Resident Officer in Charge of Construction (ROICC).	o enable the ratory space onsolidated e between we stance of the will permit s. The fac harge of Con	e the development of a radio frequency (RF) sensor facility to support NCCOSC RDT&E Division tasks. space for personnel supporting RF sensor programs such as Combat Direction Finding, Outboard, sated Outboard Logistics Upgrade (COBLU). Currently, program personnel and facilities are en work areas. The second story addition will allow program personnel and the RF sensor laboratory of the RF Sensor Anechoic Chamber and Sensitive Compartmental Information (SCI) facilities. ermit an unrestricted bay and ocean view to be used for development of the RF front-end facility itself will cost \$250K, with \$30K for design, Supervision, Inspection and Overhead of Construction (ROICC).	nt of a radi mel support ggistics Upg The second Anechoic C icted bay e will cost ROICC).	io frequenting RF serstande (COB story add Chamber and ocean and serstande s	rcy (RF) sembor programs or programs in the first programs of the	ensor facients such allow program of comparts or design.	lity to as Combai ogram per ogram per mental Ir developr Supervis		CCOSC RDTA  To Finding  A facili  CSCI) facili  CSCI) facili  ERF from	EE Divisi 9, Outbos ties are sensor L acilities nt-end nd Overhe	on tasks. rd, eboratory

BUSINESS AREA CAPITAL PURCHASES JU  (\$ in Thousands)	IASES JUS	USTIFICATION	2					A. FY 199	6/1997 Bi	A. FY 1996/1997 Biennial Budget Estimate	get Estir	B te
B. Navy/Research & Development				c. L0035		Electromagnetic Laboratory - New Mission	Laborator	٠.		D. NCCOSC	O	
		FY94			FY95			FY96			FY97	
Element of Cost	QUANT	COST	TOTAL	QUANT	COST	TOTAL	QUANT	COST	TOTAL	QUANT	COST	TOTAL
  Installation					<b>-</b>							
Testing												
Equipment										-		252.0
TOTAL												252.0
DESCRIPTION												

currently used for processing classified work. Work in impulse radar, non-acoustic ASW programs supporting mine and information warfare, and countermeasures techniques requires work space and reference material at the Sensitive Compartmental Information (SCI) classification level. The first floor will be dedicated to processing analysis, with the second floor used for analysis report generation and reference material. The second floor will allow the processing capability installed on the first floor to be fully utilized by project personnel. Additionally, this project will provide a Construction of a second story will provide additional classified work space for Electromagnetic projects at the NCCOSC RDT&E Division (i.e., central location for personnel requiring work space at the SCI classification level. The facility itself will cost \$225K, with \$27K for design, PRISM, ATLANTIS, Communication Countermeasures, High Frequency Broadband Antenna System, and TAC SIGINT technology programs). The building is Supervision, Inspection, and Overhead (SIOH), and the fee for the Resident Officer in Charge of Construction (ROICC).

Element of Cost Element of Cost Quant Out TOTAL UNIT TO													
FY95   FY96   FY97   UNIT   TOTAL   UNIT   TOTAL   UNIT   TOTAL   UNIT   COST	Navy/Research & Development				  C. L0033		Constructi Mission	on < \$200		200,000	D. NCCOS	ن	
COST COST QUANT COST COST QUANT COST COST COST COST COST COST COST COS						FY95			FY96			FY97	
centers to accommodate new requirements, modernize, and replace have 4.01 million square feet of laboratory and office space.  Hent (often in a protected environment) for the forces afloat pment, frequently in physically secure areas egulations	Element of Cost	QUANT	COST	TOTAL	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL COST	QUANT	UNIT	TOTAL
centers to accommodate new requirements, modernize, and replace have 4.01 million square feet of laboratory and office space.  Hent (often in a protected environment) for the forces afloat pment, frequently in physically secure areas egulations	stallation												
centers to accommodate new requirements, modernize, and replace have 4.01 million square feet of laboratory and office space.  Hent (often in a protected environment) for the forces afloat pment, frequently in physically secure areas egulations	sting												
centers to accommodate new requirements, modernize, and replace have 4.01 million square feet of laboratory and office space.  Hent (often in a protected environment) for the forces afloat pment, frequently in physically secure areas	uipment									0.009			445.0
Minor Construction is used by the NCCOSC research, development, and engineering centers to accommodate new requirements, modernize, and replace solute facilities. The centers are located in 18 sites throughout the nation and have 4.01 million square feet of Laboratory and office space. In construction is used at NCCOSC activities to:  - modify existing spaces to provide suitable space to test and design new equipment (often in a protected environment) for the forces afloat construct new facilities to provide suitable space to test and design new equipment, frequently in physically secure areas  - upgrade hazardous waste facilities to ensure compliance with applicable laws/regulations	TOTAL									0.009			445.0
- modify existing spaces to provide suitable space to test and design new equipment (often in a protected environment) for the forces afloat  - construct new facilities to provide suitable space to test and design new equipment, frequently in physically secure areas  - upgrade hazardous waste facilities to ensure compliance with applicable laws/regulations  - improve existing security measures	SCRIPTION  Minor Construction is used by the NCCC solete facilities. The centers are located construction is used at McDoc activition is used at McDoc activition is used at McDoc activition is used at McDoc activition is used at McDoc activition is used at McDoc activition is used at McDoc activition is used at McDoc activities.	USC research, d	levelopmen:	t, and eng	gineering stion and	centers have 4.0	to accomment million	date new square fe	requirem	ents, mode	ernize, ar	d replac	
	- modify existing spaces to provide successful to the modify existing spaces to provide successful the modifies to provide to restruct new facilities or improve existing security measures	uitable space t suitable space to ensure compl	o test and to test a	d design r and desigr h applicat	new equipm n new equi ble laws/r	nent (oft ipment, f regulatio	en in a pr requently ns	otected e	invironme ally sec	nt) for th ure areas	le forces	afloat	

171 D seanight The Gommon . 8	,				FY 19	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	udget : Bienni	A. Budget Submission 1997 Biennial Budget	ion et Esti	mate	
y ent	Ine No. & ADP Equip	C. Line No. & Item Description Non-ADP Equipment (Replacement) >\$500,000 Solid State Multinuclear Spectrometer	criptio lacemen ar Spec	n tt) >\$50 tromete	10,000 er	D. Act	ivity I	D. Activity Identification Naval Research Laboratory	cation		
	FY 1994	4		FY 1995	.5		FY 1996			FY 1997	
Element of Cost Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit Cost	Total Cost
Solid State Multinuclear Spectrometer						ı	1	1,200			

conducts basic and applied research and development studies in the broad fields of chemical diagnostics, reaction Bubmarine atmosphere analysis and control, nanometer scale phenomena, sensors, and solution chemistry. This item is a high field (500 MHz), wide bore (89 mm) multinuclear research nuclear magnetic resonance spectrometer The new instrument will for solids and liquids. It will supplement an aging MSL-300 instrument purchased in 1984. The new instrument will have new, and necessary, capabilities: a) higher field for greater spectral resolution; b) higher field to explore rate control materials chemistry, surface and electrochemistry, combustion, and fuels chemistry. Specialized programs within these fields include organic polymeric materials, coatings, dynamics, laser chemistry, tribology, the use of induced magnetization to transfer NMR coherence over distances of 1 micron; and c) solid state triple characterization of organic and polymeric materials, to innovative non-destructive analysis and to the continued resonance experiments. The current instrument will be retained for less demanding experiments so long as its physical and chemical characterization of surfaces and theory of surfaces, chemistry of electronic materials, This instrument is crucial to state-of-the-art evolution of more powerful nuclear magnetic resonance techniques. increasing failures can be repaired at reasonable cost.

Satellite Data Receiving and Processing System FY 1994   FY 1994   FY 1995	FY Quan Cost	Narrative Justification:  NAL receives and processes many satellite image data sets, such as the Advanced Very High Resolution Radiometer (AVHRR), Coastal Zone Color Scanner (CSCS), Defense Meteorological Satellite Program (DMSP), and Advanced Visible and Infrared Imaging Spectrometere (AVIRIS), and other datasets which are all utilized in large quantities for research. Image datasets require large amounts of mass storage. A single satellite image dataset can often contain hundreds of megabytes. Present data reception includes National Oceanographic and Atmospheric Administration (NOAA) and Defense Meteorological Satellite Program (DMSP) data, both global and line-of-sight processed on one computer system. The existing equipment has become very unreliable with constant maintenance of both hardware and programming. This maintenance support is becoming unavailable due to the of the maintenant.
	) >\$500,000 rocessing	C. Line No. & Item Description Non-ADP Equipment (Replacement) >\$500,000 Satellite Data Receiving and Processing System  Try 1994  Unit Total Quan Cost Cost  Quan  Total  Unit Unit Total  Unit Unit Unit Unit Unit Unit Unit Unit

BUSINESS AREA CAPITAL PURCHASES JUSTIF (Dollars in Thousands)	PURCHASE Thousa	s JUSTIF	ICATION			FY 19	A.	Budget / Bienn	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	lon et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Lin Non-AD 100KV	C. Line No. & I Non-ADP Equipme 100KV E-beam Li	C. Line No. & Item Description Non-ADP Equipment (Replacement) >\$500,000 100KV E-beam Lithography System	criptic lacemen hy Syst	on 1t) >\$5( :em	000,000	D. Act	ivity   Researc	D. Activity Identification Naval Research Laboratory	cation		
		FY 199	94		FY 1995	35		FY 1996	50		FY 1997	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
100KV E-beam Lithography System										1	2,500	2,500

Nanoelectronics Processing Facility and thus the entire NRL community. The present nanowriter (JEOL JBX-5DII) is being constantly utilized and yet is still incapable of meeting the level of workload, causing program delays. The Leica Cambridge tool will be complimentary to the JEOL and a quantum leap improvement over our second e-beam the Cambridge EBMF 6.5. Compared to the EBMF 6.5, the e-beam lithography system has nearly an order of magnitude better resolution (25 vs 200 nm), is 4x faster (25 vs 6 MHz), has five times the beam energy (100 kV vs 20 kV), has a vastly superior pattern generator and has a superior pattern placement specification (30 nm vs 100 nm). In conjunction with the JEOL nanowriter, the new tool will provide NRL The drive in advanced electronics research is to ever smaller critical dimensions, more precise pattern placement and With existing e-Many non-electronics applications (such as Fresnel Optics, Nanobeam machines this leads to huge pattern files which are impossible to process. The purchase of the 100 kv Leica-Cambridge tool will alleviate this problem and provide a quantum leap in the lithographic capability of the with an e-beam lithography suite which is truly state-of-the-art. Programs covered include Nanoelectronics ARI, Plasma Processing ARI, Electronic Materials ONR/T, Field Emission Array ONR/T, ARPA Advanced Lithography Program, Molecular Sensing ONR/T, Shipley CRADA, RF Devices ONR/T and MIMIC ARPA (Microwave/Millimeter Wave Monolithic engraving, and Precision Engineering) also require sub 100 nm geometries. Here, the main problem is often the ability to write arbitrary patterns containing complex geometric shapes such as curves and circles. With exist complete circuits rather than individual devices. Integrated Circuits).

	(Dollars in Thousands)	B)			FY 19	A. Budget Submission 1996/1997 Biennial Budget	Budget 7 Bienn	Submission ial Budget		Estimate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >\$5 Gas Source Metal-Organic Molecular Epitaxy System	& Item Description Description Description Generat Getal-Organic Molec	scriptic placemer nic Mole	on nt) >\$5(	>\$500,000 ar Beam	D. Act	Activity ]	lvity Identification Research Laboratory	cation  atory		
	FY	1994		FY 1995	95		FY 1996	10		FY 1997	
Element of Cost	Quan Cost	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total	Quan	N W	Total Cost
Gas Source Metal-Organic Molecular Beam Epitaxy System									1	1,400	1,400
Narrative Justification:  NRL has a research mission in the areas of growth, millimeter wave devices and the utilization of stated devices. In addition, NRL is working in areas which design and fabrication of structures and devices whence in the cutting edge of III-V and sources, for instance phosphorus-based compounds. power and low noise devices and integrated circuit military applications. It is also key for nanceled fundamental limitations inherent in simply scaling dimensions. NRL is currently unable to adequately source MBE system. The acquisition of such a system also upgrade our general capabilities in that this equipment. Obtaining material grown externally from severely restricting. Advance material growth rese parameters, ensure material quality, and maintain of Projects supported by this equipment are Nancelectimic material quality.	ilon: hission in the areas of growices and the utilization of on, NRL is working in areas ton of structures and device the cutting edge of III-V are phosphorus-based compound devices and integrated circler in simply scals. It is also key for nancions inherent in simply scals currently unable to adequate allows inherent in simply scals currently unable to adequate allowers capabilities in that the material grown externally and material quality, and maintanterer wave devices.	growt of eas were eas wilces wilces circunance equations with resident	th, high powestate-of-the which required which util and related conting the selectronic downing conventives would the new mach from the liresearch mustin control of ectronic Accestronic	er, hig rart gr e the u ize qua compound ability re beco levice r onal si onal si ine wou mited n t be pe ver mat	th, high power, high frequency state-of-the-art microwave and state-of-the-art growth techniques for the fabrication of these which require the ultimate in heterostructure engineering for the which utilize quantum efforts for the generation novel electronic and related compound MBE research is in areas which require gas is. This capability is particularly important for millimeter wave uits which are becoming increasingly important for both commercial application and silicon microelectronic technology to smaller telly work in these areas because it has no easily accessible gas yistem would not only allow us to work in these new areas but it would not only allow us to work in these new areas because it has no easily accessible gas yistem would not only allow us to work in these new areas but it would not only allow us to work in these new areas but it would not only allow us to work in these new available is research must be performed internally to optimize specific growth in control over material growth flexibility and timeliness.	ancy state-of-the-art microwave in heterostructure engineering forts for the generation novel orts for the generation novel is in areas which requiricularly important for millime reasingly important for millime reasingly important for both convelectronic technology to smucroelectronic technology to smucroelectronic technology to smucroe to work in these new areas state-of-the-art growth and distate-of-the-art growth and distate-of-the-art growth and distaternally to optimize specificowth flexibility and timelines obth flexibility and timelines	e-of-th for the off the the ge in a re import import y import y import being ronic t has ne rre MON in to cree MON in to c xibilit	state-of-the-art microwave and lues for the fabrication of these leterostructure engineering for the for the generation novel electronic h is in areas which require gas arrly important for millimeter wave ingly important for both commercial h is being undertaken to overcome the lectronic technology to smaller lectronic technology to smaller in these new areas but it wous e-of-the-art growth and diagnostic source MOMBE systems available is really to optimize specific growth if flexibility and timeliness.	nicrowavation of the control of the	art microwave and fabrication of these re engineering for the retion novel electron which require gas which require gas not for millimeter wave nt for both commerciandertaken to overcome channology to smaller assily accessible gas ese new areas but it will growth and diagnostic systems available is imize specific growth and timeliness.	sae ttronic sa wave rcial and come the it would satic e is cowth

BUSINESS AREA CAPITAL PURCHASES JUSTIFI (Dollars in Thousands)	PURCHASE Thousa	s JUSTIF	ICATION			FY 19	A.	Budget Bienni	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	lon et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line Non-ADP E	C. Line No. & I. Non-ADP Equipme Multimode Towed Facility	ם עו	criptic lacemen e for M	em Description t (Replacement) >\$500,000 Vehicle for Mine Research	10,000 learch	D. Act	ivity I	D. Activity Identification Naval Research Laboratory	cation		
		FY 199	94		FY 1995	5		FY 1996			FY 1997	
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
Multimode Towed Vehicle for Mine Research Facility										1	553	553

reflectance, and bottom clutter, can be obtained from stationary platforms (NRL's high-frequency programs), it is the variability of these properties that has the greatest impact on high-resolution target imaging systems. To this date enable NRL to support these current and any future acoustic and optical Mine Countermeasure (MCM) system developments Resolution MCM, Optics, Influence of bubbles on Naval Systems, and Tasks associated with the Center for Mine Research high-resolution environmental data (Coastal Benthic Boundary Layer (CBBL)) would enable NRL scientists to obtain data classification systems (Coastal System Station (CSS) requires acoustic and optical variability data over a wide range no experiments have been designed to provide measurements of these spatial variability's along tracks in shallow-water coastal areas, and until now, no organization has had the capability or the experience to address these issues. However, configuring this body with optical and acoustic sensors and combining these measurements with concurrent and develop and validate basic models that describe the physics that control the acoustic and optical variability of The physics that control the variability of the acoustic and optical properties of shallow-water coastal areas are of different environmental conditions.) This combination of a stable tow body, acoustic and optical sensors will at CSS. Research programs supported include High-Frequency Scattering, Environmental Physics for MCM, High-While mean values of the bottom reverberation, optical In addition, to simulate the performance of current and future detection and not understood or in most cases not even identified. various coastal environments.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	PURCHASE n Thouse	s Justil	FICATION			FY 1	A.	Budget 7 Bienn	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Lin Non-AD UV/X-r	C. Line No. & Ite Non-ADP Equipment UV/X-ray Science		m Descriptio (Replacemen Laboratory	on ot) >\$50	000,000	D. AC	Livity	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994	194		FY 1995	)5		FY 1996	9		FY 1997	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
UV/X-ray Science Laboratory										1	552	552

National Aeronautics Space Administration as well as several businesses. In order to capitalize on this position and organize larger, developmental programs for these sponsors, we propose to construct a laboratory dedicated to testing and processing experimental diamond photodetectors. These devices are difficult to test because they may have small Existing test facilities are not adaptable to these kinds of devices or are in full Dedicated processing facilities are required that either do not exist or would be imaging soft x-rays using normal-incidence multilayer mirrors were recently developed at NRL. Civilian applications of this work include x-ray projection lithography and the imaging of biological specimens using the nanosecond-duration x-ray aburst from the laser-produced plasma. Continued progress in the field requires a detector with the sensitivity, dynamic range, and time resolution which is only achievable with the gated MCP/CCD camera described The electrochemical etching apparatus has so far only been shown to be useful for cleaning diamond. The annealing apparatus is required because existing furnaces for semiconductor processing would The UV and soft X-ray systems will be This facility will also directly support the development of multi-layer coatings for X-ray optics. Techniques for photodetectors for Ultra Violet (UV) and Vacuum Ultra Violet (VUV) detection. NRL has been working with Lincoln configured to test small-area devices more easily than existing facilities. These may all be useful for testing Laboratories and various small business, also NRL has attracted the interest of the Office of Naval Research, NRL has been executing a very productive exploratory development effort to assess the suitability of diamond be contaminated by the materials likely to be present on our photodetectors. experimental detectors developed in other programs at NRL. use supporting existing programs. contaminated by these detectors. or non-uniform responsive areas.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	PURCHASE	ss JUSTII	ICATION			FY 19	A.	Budget Blenn	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Lin Non-AD 3-D Do	C. Line No. & It Non-ADP Equipmen 3-D Doppler Vibr	C. Line No. & Item Description Non-ADP Equipment (Replacement) >\$500,000 3-D Doppler Vibrometer	em Description it (Replacement ometer	n tt) >\$50	000,000	D. Act	ivity ]	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994	94		FY 1995	5		FY 1996	2		FY 1997	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total
3-D Doppler Vibrometer										-	547	547

NRL is actively involved in extending its Structural Acoustics measurements capability from underwater systems to inadition, air systems. To this end, an advanced system will house a new Nearfield Acoustical Holography Scanner. In addition, the 3-D Laser Doppler Vibrometer will significantly enhance structural vibration data acquisition. Research Programs supported are Apparent Damping, Target Cross-Section Characteristics, Active Target Characteristics, Internal Noise, Aircraft Structures and Cradle/Truss Structure Program.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASI n Thousa	s Justin	FICATION			FY 19	A.	Budget 7 Bienni	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion jet Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Lin Non-AD	C. Line No. & Ite Non-ADP Equipment	1 8	Description >\$50,000 <\$500,000	is 1500,000		D. Act	ivity Resear	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994	194		FY 1995	15		FY 1996	9		FY 1997	
Element of Cost	Quan	Unit	Total	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
Non-ADP Equipment >\$50,000 <\$500,000							87		6618	59		2986

The Naval Research Laboratory investment in non-ADP equipment costing between \$25K and \$200K provides the most impact to the greatest number of people and projects supported by the Laboratory. Items purchased include items such as oscilloscopes, spectrometers, waveform generators and microscopes for research divisions.

The need to maintain an up-to-date equipment base encompasses all phases of NRL technology to satisfactorily accomplish its mission. Much of the equipment planned for purchase replaces items that are currently operating in a degraded mode because of their age and the fact that the technology no longer supports The Naval Research Laboratory is a highly technical and sophisticated research center requiring state-of-the-art current and projected requirements. The need to maintain an up-to-date equipment base encompasses all phases of from management and infrastructure support to areas of science, technology, warfare systems, sensors research, materials and space technology. Research and development timetables and rapid equipment would result in higher costs, time delays and limit the Laboratory's ability to deal in an arena of advanced technology problems and taskings.

tem Description Replacement) >\$100,000 Raval Research Laboratory Solver Challenge Richard Computer  Total Quan Cost Cost Quan Cost Cost Cost Cost Cost Cost Cost Cost	6/1997 Biennial Budget Est  D. Activity Identification  Naval Research Laboratory  FY 1996  Unit Total Quan  Cost Cost Quan  1 635 635  ation device for simulation d databases via the Tactic ternet connection, etc. Timulation Laboratory (TOSL) laboratories. ONI, NAVALR	A. Bude  10. Activi  Naval Res  Pr  Ty  Quan  Quan  Co  ation dev  d databas  ternet co  mulation  laborator	FY 199 10 10 10 15 15 16 16 17 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	tem Description Replacement) >\$100,000 8 Inc. (SGI) Power Cha 300 Mflop Computer  Total FY 1995 Cost Quan Cost Cost Cost Cost Cost Cost I serve as the real tin Cs. Access to this con sified room, NES encrys In the Tactical Oceanog	tem Description Replacement) >\$ 8 Inc. (SGI) Po 300 Mflop Compu Cost Cost Cost Leerve as the cs. Access to sified room, NE in the Tactical	CAT tem Repm 300 300 10th Latin that latin that	Thousands)  C. Line No. & It ADP Equipment (It Silicon Graphic XL8 Processor, XL8 Processor, TY 1994  FY 1994  Cost Cost Cost Cost Cost Cost Cost Cos	Thousar Thousar C. Linc ADP Equ Silicol XL8 Pro XL8 Pro Challeng Fic rese	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION  (Dollars in Thousands)  B. Component/Business Area/Date Department of the Navy Research and Development Research and Development Research and Development Research and Development Research and Development Research and Development Silicon Graphics Inc. (SGI) Power Challenge XL8 Processor, 300 Mflop Computer Narrative Justification: An eight processor SGI Power Challenge SL will serve classified computer for acoustic research users. Ac Wide Area Network (TOWAN) will require a classified existing and planned equipment for other simulation
odeling and simulation efforts. The Naval Doctrine Command (NDOC) and plans to fund the application of state-of-the-art modeling and	ral Doctri	The Nav of state-	ng and simulation efforts. The Na of to fund the application of state	mulatio the ap	and site for the formula to the form		SC for	at NRL-S roup (SW	have already funded programs at NRL-SSC for mo Surface Warfare Development Group (SWDG) have
In the Tactical Oceanography Simulation Laboratory (TOSL) as well as lation capabilities at various laboratories. ONI, NAVAIR and SPAWAR	Laborator	mulation laborator	ography Sit various	1 Ocean ities a	Tactica capabil	ati	ent wit	d equipm t for ot	100% compatible with installed equipment with existing and planned equipment for other simul
simulation as well as a le Tactical Oceanography , etc. The equipment is	rice for see via thousand	ation dev d databae ternet comulation	ime calcul omputer an yption, In ooraphy Si	real to this constitution that the transfer of	as the cess to room, N	L se cs. sifi	e SL wiserch use a cla	Challeng tic rese l requir d equipm	An eight processor SGI Power ( classified computer for acoust Wide Area Network (TOWAN) will 100% compatible with installed
									Narrative Justification:
Ω		1 6							- 1
1 Unit Quan Cost			Total Cost	Unit	Quan	Total	Unit	Quan	Element of Cost
	1996	FY	5			4	FY 199		
<b>lfication</b> <b>poratory</b>	ity Identi Bearch Lab	D. Activi	00 nallenge	on \$100,00 Power Ch	criptic ment) > (SGI) E	Item Des (Replace ics Inc.	uipment n Graph ocessor	C. Line ADP Equ	B. Component/Business Area/Date Department of the Navy Research and Development
	iennial Bu	A. Bud	FY 199			FICATION	s JUSTI	Thousar	BUSINESS AREA CAPITAL P (Dollars in
A. Budget Submission FY 1996/1997 Biennial Budget Estimate	A. Budget Submission								

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	PURCHASE n Thousa	S JUSTI	FICATION			FY 19	A. 1	<b>Bienni</b>	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No ADP Equipor Silicon Gr	C. Line No. & It. ADP Equipment (National Silicon Graphics Expansion	( a) a)	criptic ssion) >	%100,00	m Description w Mission} >\$100,000 Power Challent XL Computer	D. Act	ivity 1	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994			FY 1995	5		FY 1996			FY 1997	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total	Quan	Unit	Total Cost
Silicon Graphics Power Challent XL Computer Expansion							1	162	162			

Assimilation, Remote Sensing, Simulation and Visualization, and Shipboard Tactical Atmospheric Forecast Capability (STAFC) programs. To maintain the capability of responding quickly to research priorities requires an NRL conducts basic and applied research in meteorology and supports vital Atmospheric Modeling, Atmospheric Data upgrade/expansion of the current supercomputer resource for development of advanced numerical weather prediction models/data assimilation systems.

	(Dollars in Thousands)	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollare in Thousands)			FY 19	A. 196/1997	Budget Bienni	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion jet Esti	mate	
B. Component/Business C. LinArea/Date ADP E	ine No. & Equipment	C. Line No. & Item Description ADP Equipment (Replacement) >\$100,000	criptic	on \$100,00	00	D. Act	ivity ]	D. Activity Identification	cation	0	
Department of the Navy Research and Development (RAID)	400 GB Redundant (RAID)		of Ine	xpensiv	Array of Inexpensive Disks	TRABU	Kesear	naval kesearch Laboratory	atory		
	FY 1994	4		FY 1995	95		FY 1996			FY 1997	
Element of Cost Quan	Unit	Total	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
400 GB Redundant Array of Inexpensive Disks (RAID)						1	100	100			
Narrative Justification:											

experiments will be processed at NRL and archived to magnetic tape and stored. For actual data analysis, the processed data set must be moved from the archive to online high-speed disk storage for rapid access and analysis. The RAID is a critical acquisition given the magnitude of the data anticipated from ARGOS which cannot be accomodated the ARGOS (Advanced Research and Global Observation Satellite) Air Force STP-P91 satellite in 1995. Data from these This item is in support of the USA (Unconventional Stellar Aspect), HIRAAS (High Ionosphere Resolution Airglow/Auroral Spectrograph), and GIMI (Global Imaging Monitor of the Ionosphere) projects scheduled for launch on with existing systems.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	URCHASE Thousar	S JUSTIF	ICATION			FY 19	A. 1	Budget Bienni	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	lon et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Linc ADP Equ Reality	e No. & uipment	C. Line No. & Item Description ADP Equipment (Replacement) >\$100,000 Reality Engine Upgrade	criptio ment) >	, s 100, oc	00	D. Act	ivity ]	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994			FY 1995	15		FY 1996			FY 1997	-
Element of Cost	Quan	Unit	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
Reality Engine Upgrade							Н	100	100			
Narrative Justification:												
NRL conducts research and development programs provide a basis for improving the conduct of mi data flow required by all of the projects that	slopment the cor	program	me in the military at rely c	in the collection, litary operations. rely on the process	ction, tions. process	in the collection, transmission, and processing of information litary operations. This upgraded processing speed will permit rely on the processing of visual information on a requist basis	ion, an raded p sual in	d proce	and processing of information processing speed will permit information on a requiar basis	f inford will require	mation permit	to the
These projects include: terrain maps for decision support systems; images for research in active control technologies; development of processing graph tools; and the interactive display required for research in virtual reality. The Reality engine provides a factor of 4 increase in performance of the control of the contr	in maps procession	for decling grap!	cision su h tools; or of 4	upport and the	systems e inter	ion support systems; images for research in active control cols; and the interactive display required for research in virtual of 4 increase in nearformance of the control of the increase in nearformance of the control of the contro	for res splay r	earch i	n activ for re	e contra	in virt	· Lal
currently in use. This increase is critical to will support research efforts in a variety of a project SPOTLIGHT, and project W for the Advanc	age is clarated with the formal of the forma	ritical wriety of	0 0 0	iding most	ore rea with t	providing more realistic virtual reality experiments. This hardware reas such as with the Ballistic Missile Defense Organization (BMDO), ed Research Projects Agency (ARPA). The mission impact will be to	rtual r tic Mis	eality sile De	experim	computents.	This harttion (B	at ls hardware (BMDO),
increase the reality and size of the simulations being examined by scientists working on the above critical	of the	simulat	ions bei	ng exam:	ined by	simulations being examined by scientists working on the above critical	ts work	ing on	the abo	ve crit		programs.

	BUSINESS AREA CAPITAL PURCHASES JUSTIFI (Dollars in Thousands)	URCHASE	S JUSTII	FICATION			FY 19	A.	Budget 7 Bienni	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion Jet Esti	lmate	
1	B. Component/Business Area/Date Department of the Navy Research and Development	C. Line ADP Equanda Adaptive Machine	C. Line No. & ADP Equipment Adaptive Solut	C. Line No. & Item Description ADP Equipment (Replacement) >\$100,000 Adaptive Solutions Logical Connection Machine	criptic ment) >	on \$100,00	00 uc	D. Act	ivity 1	D. Activity Identification Naval Research Laboratory	cation		
			FY 199	994		FY 1995	35		FY 1996	9		FY 1997	
	Element of Cost	Quan	Unit	Total	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
	Adaptive Solutions Logical Connection Machine							н	115	115			
กกกรวช	Narrative Justification:  The Adaptive Solution Logical Connection Machine (CNAPS) will process data from different types of array sensors in real time with appropriate high speed input and video outputs. The machine architecture is suitable for traditional signal processing and adaptive neural network processing. NRL has done research for Neural Networks and Adaptive stina like processing over the past several years that have resulted in successful demonstrations of non-uniformity correction (NUC) for IRFPA (infrared focal plane array sensors). This work has been well received by the detectors community and NRL has recently begun planning to perform a real-time demonstration of the adaptive NUC technique in a field environment. Unfortunately, the Numerix Array Processor used to demonstrate the neural networks is not suitable for testing in a field environment due to its size, weight, and power consumption. The CNAPS processor will expand NRL's capability to perform adaptive NUC in the field environment and it will give NRL the ability to perform virtually any field test since the CNAPS is fieldable.	Connect th speed e neural ne past nfrared / begun cely, th	ion Mac linput networ several focal p plannin e Numer conment	chine (CNAPS) will Is and video outputs. It processing. NRL. years that have relane array sensors in to perform a realix Array Processor due to its size, we field en fieldable.	APS) wi o outpu sing. hat hav ay sens form a Proces ts size he fiel	il proc trs. Th NRL has e resul ors). real-ti sor use , weigh	ine (CNAPS) will process data from different types of array sensors in video outputs. The machine architecture is suitable for traditional processing. NRL has done research for Neural Networks and Adaptive years that have resulted in successful demonstrations of non-uniformity ane array sensors). This work has been well received by the detectors to perform a real-time demonstration of the adaptive NUC technique in a x Array Processor used to demonstrate the neural networks is not ue to its size, weight, and power consumption. The CNAPS processor will ieldable.	from diachiticessfushas be tration wer considered it will be to be the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constrate of the constraint of the constra	lfferent cecture for Neur il demor sen well n of the sthe ne sumptic	types is suit al Netw stratio l receiv adapti eural ne on. The	of arrable for forks ar on sof red by the condition of th	a from different types of array sensors in ne architecture is suitable for traditional sesarch for Neural Networks and Adaptive successful demonstrations of non-uniformity ork has been well received by the detectors onstration of the adaptive NUC technique in smonstrate the neural networks is not power consumption. The CNAPS processor will and it will give NRL the ability to perform	sensors in traditional Adaptive -uniformity detectors chnique in a not not to perform

BUSINESS AREA CAPITAL PURCHASES JUSTIFICA (Dollars in Thousands)	PURCHASE Thousa	ES JUSTI nde)	FICATION			FY 19	A.	Budget 7 Bienn	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	ion get Est	imate	
B. Component/Business Area/Date	C. Lin	ne No. & puipment	C. Line No. & Item Description ADP Equipment (Replacement) >\$100,000	scriptic	, \$100,00	00	D. Act	civity	D. Activity Identification	ication		
Department of the Navy Research and Development	Gigasw Floati Server	vitch Nei Ing Point	Gigaswitch Network Interconnect, Total Floating Point Processors and Workstation Server	terconne sors and	ect, Total 1 Workstat	tal tation	Naval	Resear	Naval Research Laboratory	ratory		
		FY 1994	994		FY 1995	95		FY 1996	9		FY 1997	7
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total
Gigaswitch Network Interconnect, Total Floating Point Processors and Workstation Server							н	228	228			
Narrative Justification:												
Acquire a high speed network interconnect to enable the maximum productive use of the compute servers (CS). This Giga-Switch would operate together with the CSs to provide both a platform for large calculations that would not fi on a single machine, as well as a development configuration for prototyping codes for eventual large production rur on remote high performance computers and other massively parallel systems. The Onyx Total Floating Point (TFP) performance processors are very strong computational processors, utilizing state-of-the-art compilers and software support to allow a global memory symmetric multi-processing paradigm. The total power of the TFP processors would thrown all at one demanding problem such as the realtime helicopter/ship leading simulations or at other complex virtual realities.	intercol lether was a de- mputers ry stroi	nnect to ith the velopmen and oth ng compu metric m	css to F it configurer massi itational ulti-pro	the max provide puration vely pa proces	imum pr both a for pr rallel sors, u paradi	able the maximum productive use of the compute servers (CS). This to provide both a platform for large calculations that would not findfiguration for prototyping codes for eventual large production runnassively parallel systems. The Onyx Total Floating Point (TFP) clonal processors, utilizing state-of-the-art compilers and software i-processing paradigm. The total power of the TFP processors would realtime helicopter/ship leading simulations or at other complex	use of for lar foodes The Or state-c total F	the cor ge cald for even yx Tota of-the- simulat.	use of the compute servers (CS). This for large calculations that would not fit codes for eventual large production runs The Onyx Total Floating Point (TFP) state-of-the-art compilers and software total power of the TFP processors would buding simulations or at other complex	ervers large processillers processillers at othe	(CS). 1 would r roductic int (TFE and soft	This not fit on runs P) tware would be

RISTNESS AREA CADITAL DIRCHASER TISTIBLION	IIRCHASE	TTSIII. S	NOTTACT				•	Dudget	B Dudoot Cubmington	7		
(Dollars in Thousands)	Thousar	nds)	ica ion			FY 15	96/1997	buaget 7 Bienn:	A. Budget Submission FY 1996/1997 Blennial Budget Estimate	ion jet Esti	imate	
B. Component/Business Area/Date	C. Lin ADP Eq	e No. & uipment	C. Line No. & Item Description ADP Equipment (Replacement) >\$100,000	criptic ment) >	on \$\$100,00	00	D. Act	ivity :	D. Activity Identification	lcation		
Department of the Navy Research and Development	High S System	High Speed, Bros System	oadband	Data Ac	dband Data Acquisition	Lon		Topagou	TOTAL TIPO	100 P		
		FY 19	1994		FY 1995	)5		FY 1996	2		FY 1997	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
High Speed, Broadband Data Acquisition System										н	830	830
Narrative Justification:												
Existing acoustic array assets provide more channels (160) than any available data acquisition system, but the present systems cannot accommodate either the bandwidth or the numbers of channels of present day prototype optic arrays (100 channels, 120 dB dynamic range and a 0 to 20 kHz frequency range). This acquisition system can handle the number of channels and the frequency bandwidth of existing optic arrays and facilitate an up-grade to the system as A/D technology matures and digitizers with the resolution, dynamic range and bandwidth become available. As the 24-bit technology matures it will be integrated into the data acquisition system to meet the end goals of the acquisition system. Some of the programs supported are: Navy 6.2 Shallow Water Projects, Full Spectrum Noise Program, Matched Field Processing in Shallow Water, etc.	provided and provi	de more ither th range a ency ban zers wit integra jrams su Shallow	channels e bandwich a 0 to dwidth of the rested into pported 8 Water, 6	(160) dth or to 20 kH f exist seolutio the da are: N	than an the num Hz frequ ting opt on, dyna ata acqu Navy 6.2	annels (160) than any available data acquisition system, but the bandwidth or the numbers of channels of present day prototype oping to 20 kHz frequency range). This acquisition system can harothe of existing optic arrays and facilitate an up-grade to the the resolution, dynamic range and bandwidth become available. It is the data acquisition system to meet the end goals of the orted are: Navy 6.2 Shallow Water Projects, Full Spectrum Noise ater, etc.	le data thannels re). The and fa tystem t	a acquisto property acquistration acquistrat	sition sesent de uisitior te an uk h become the end the end s, Full	aystem, ay protc n system p-grade a avails 1 goals Spectru	but the otype op a can ha to the to the of t	tic ndle system As the

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	PURCHASI .n Thousa	ES JUSTI	FICATION			FY 1	A.	Budget 7 Bienn	A. Budget Submission FY 1996/1997 Biennial Budget	ion get Est	Estimate	
B. Component/Business Area/Date	C. Lir	C. Line No. 6 ADP Equipment		Item Description (Replacement) >\$	on >\$100,00	00	D. Ac	tivity	Activity Identification	ication		
Department of the Navy Research and Development	Virtus Enhanc	Virtual-Reality Enhancements	ty Computer	ter System	tem		Naval	Resear	Naval Research Laboratory	ratory		
		FY 19	1994		FY 1995	35		FY 1996	9		FY 1997	
Element of Cost	Quan	Unit	Total	Quan	Unit	Total Cost	Quan	Unit Cost	Total Cost	Quan	11 10	Total Cost
Virtual-Reality Computer System Enhancements											260	560
In FY94, NRL acquired a parallel processing, virtual reality computer to support interactive simulation, data viaualization and analysis activities and to explore the application of virtual reality techniques to these areas. To adequately pursue these activities, the Virtual-Reality Computer System enhancements to the current system are required. The new processors will increase computational performance by a factor of 20 and the graphics upgrade was papace for the expanded memory and to provide high speed disks are required provide high performance swap space for the expanded memory and to provide high speed storage and retrieval of simulation and analysis databases. These upgrades will significantly enhance simulation capabilities and dramatically increase the size of data sets which can be visualized. The overall improved system will allow supports a variety of research programs with Space Sciences.	llel pro ctivitie ctivitie s will i e comple p space bases. ze of da complex ch progr	cessing, s and to s, the V ncrease x graphi for the These up ta sets data se data se	Doessing, virtual reality computer as and to explore the application cas, the Virtual-Reality Computer Sylncrase computational performance of graphics including real-time texfor the expanded memory and to profit the expanded memory and to profit as sets which can be visualized. It data sets and support more robust cams with Space Sciences.	l realite the apparate the appa	Y compure to the computer of t	virtual reality computer to support interactive simulation, data explore the application of virtual reality techniques to these areas. Virtual-Reality Computer System enhancements to the current system are computational performance by a factor of 20 and the graphics upgrade will soluding real-time texture mapping. High speed disks are required to expanded memory and to provide high speed storage and retrieval of ogrades will significantly enhance simulation capabilities and which can be visualized. The overall improved system will allow the space Sciences.	upport france enhance factor mapping high spin sverall	Interaction of 20	to support interactive simulation of virtual reality techniques to set menhancements to the current by a factor of 20 and the graphicture mapping. High speed disks ovide high speed storage and retrenhance simulation capabilities. The overall improved system will simulations in near real time.	mulatior les to t current graphic disks a nd retri lities s m will	on, data these ar system ics upgra are requ ieval of and I allow This sy	areas. m are grade will equired to of

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)  B. Component/Business Area/Date Area/Date Department of the Navy Research and Development FY 1994	Thousan C. Line ADP Equ	RCHASES JUSTIFIC Thousands) C. Line No. & It ADP Equipment (R Compute Server U	Thousands)  C. Line No. & Item Description  ADP Equipment (Replacement) >\$100,000  Compute Server Upgrade  FY 1994	criptio	5,100,000		A. 96/199° D. Act	Budget S 7 Bienni Livity I Researc	A. Budget Submission FY 1996/1997 Biennial Budget Estimate D. Activity Identification Naval Research Laboratory FY 1996	ion let Esti cation atory	mate re re re re re re re re re re re re re	
Element of Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost	Quan	Unit Cost	Total
Compute Server Upgrade										1	200	200
Narrative Justification:  An upgrade replacement for the current Cray Y-MP/EL is required to provide NRL computer users with a compute server platform and software to support local code development, scientific visualization, and small scale simulations. A replacement of the current system will allow for increased capability, better compatability with high-performance computing systems and decreased operating costs. Cray EL systems with improved performance, larger memories, faster disks, and improved network interfaces are available. This newer system will allow NRL local computing capability the rewer, larger, and faster DoD HPC-MP systems for which it can act as a local interface. If the Cray Y-MP/EL system does not keep pace with the computational and storage needs at NRL the individual computes systems administrators and scientists will be forced to acquire their own solutions at a much greater overall cost than that of the central facility. Supports overall NRL research community.	a curren ort loca stem wil ed opera nterface ewer, la es not k lentists	t Cray ) 1 code of lallow ting cost gare, are eep pace will be upports	<pre>/-MP/EL i levelopme for incr sts. Cra vailable. nd fastex e with th e forced overall</pre>	s require scenes of the scenes	ired to ientifi capabil ystems newer PC-MP s utation uire th	MP/EL is required to provide NRL computer users velopment, scientific visualization, and small s or increased capability, better compatability wise. Cray EL systems with improved performance, lilable. This newer system will allow NRL local faster DoD HPC-MP systems for which it can act with the computational and storage needs at NRL forced to acquire their own solutions at a much verall NRL research community.	NRL com zation, er comp oved pe 11 allc r which orage r	iputer u and smarabil.	legers windles with scal scal coloral coloral coloral coloral coloral coloral coloral colorate as as as as as as as as as as as as as	th a co le simu high-p ger mem mputing a loca e indiv	with a compute server cale simulations. A th high-performance arger memories, faster computing capability to as a local interface. the individual computer greater overall cost	erver A A Ice Easter Lity to Eace. Demputer

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	PURCHASI n Thousa	ss Justi nds)	FICATION			FY 19	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	Budget Bienni	A. Budget Submission 1997 Biennial Budget	lon et Esti	mate	
B. Component/Business Area/Date Department of the Navy Research and Development	C. Lin	uipment	C. Line No. & Item Description ADP Equipment >\$50,000 <\$100,000	scription <\$100,	000 u		D. Act	ivity ]	D. Activity Identification Naval Research Laboratory	cation		
		FY 1994	994		FY 1995	5		FY 1996			FY 1997	
Element of Cost	Quan	Unit	Total Cost	uenō	Unit Cost	Total Cost	Quan	Unit	Total Cost	Quan	Unit	Total Cost
ADP Equipment >\$50,000 <\$100,000							61		4592	99		4042

equally technical and sophisticated computer systems. NRL research divisions make use of a wide variety of computers to accomplish the objectives of R&D projects. The uniqueness and complexity of these projects requires equally At the core of much of highly technical and sophisticated research accomplished at the Naval Research Laboratory are unique and complex ADP support.

personnel reductions and to reduce operating costs. In addition, upgrades are required because manufacturers will not support obsolete operating systems/equipment. The items scheduled for purchase are the minimum necessary to meet daily R&D mission operating requirements, effectively manage R&D resources and meet customers R&D requirements. Investment in workstations to include PC and LAN hardware is necessary to meet external requirements, compensate for Examples of items to be purchased are ITD server system upgrades, silicon graphics, portable workstations and workstations upgrades, imaging processing systems, etc.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	PITAL P (\$ in Th	PITAL PURCHASI (\$ In Thousands)	ES JUSTI	FICATIO	7			A. FY 19	A. FY 1996/1997 Blennial Budget Estimate	Siennial Bud Estimate	Budget nate	
B. DON/RESEARCH AND DEVELOPMENT	DEVELO	PMENT		C. 0001	Equipme	nt Non Al	C. 0001 Equipment Non ADPE- Replacement	acement		D. NFE	D. NFESC, Port Hueneme	me
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit	Totai Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Totai Cost
Equipment Non ADPE							3		411	4		267
TOTAL									411			267
Narrative Justification:  The Naval Facilities Engineering Service Center (NFESC) plans to replace outdated equipment to ensure the continued capability of Facilities, Ocean, Energy and Environmental Departments in support of the Naval Shore mission. Replacement of the equipment is essential to eliminate uneconomical repairs. Equipment requirements to support RDT&E and Engineering Services to include high technology components for precision machinery, instrumentation and measurement on site in the field. Equipment purchases will support an environmental quality, energy efficiency, ocean construction, electronic projects and facilities life cycle management products and services. Equipment replacementswill be required to sustain operations at current levels.	ring Servand Environment Envir	rice Cente ronmental reconomic ts for prec environm cts and se	er (NFESC I Departmal ral repairs rision mad ental qual ervices. E	blans to ents in su Equipm thinery, in ity, energy Equipment	replace of the poort of the entrequire strumenta y efficienct replacent	butdated egenements to sion and no y, ocean contractions and no y, ocean c	ESC) plans to replace outdated equipment to ensure the continued capabiliruments in support of the Naval Shore mission. Replacement of the airs. Equipment requirements to support RDT&E and Engineering Services machinery, instrumentation and measurement on site in the field. It is a friciency, ocean construction, electronic projects and suality, energy efficiency, ocean construction, electronic projects and solution at current solution.	to ensure ion. Repl DT&E an ent on site in, electro to sustaii	the contii lacement d Enginee in the fie nic projec n operatio	nued cap of the aring Ser ild. ts and ins at cui	ability vices rrent	

BUSINESS AREA CAPITAL PURCHASES JUST (\$ in Thousands)	oiTAL PU (\$ in Tho	JRCHAS  ousands	ES JUSTI	<b>FIFICATION</b>	2			A. FY 199	A. FY 1996/1997 Blennlal Budget Estimate	Slennlal Bud Estimate	Budget nate	
B. DON/Research and Development	elopmei	nt		C. 0003	C. 0003 ADPE & TELECOM	FLECOM				D. NFESC, Port H	FESC, Port Hueneme	eme
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Equipment ADPE & Telecomm							က		257	3		283
TOTAL									257			283
Narrative Justification:  Our current network operations are outdated and lack the needed capability and flexibility required to support current business applications and secunty requirements. We are dependent upon corporate network facilities to accomodate our growing communication file transfer and data base needs. Our plan is to fully integrate local area networks and wide area networking capability within the east and west NFESC. ADPE will be required to install state of the practice electronic networking to fully integrate operation.	ns are or uirement ind data I west NF	utdated a ts. We ar base nee ESC. At	nd lack th e depend ds. Our p OPE will b	e needed ent upon o lan is to fu la required	capability corporate cully integra f to install	and flexit network fa ate local a state of th	the needed capability and flexibility required to support current business ident upon corporate network facilities to accomodate our growing plan is to fully integrate local area networks and wide area networking be required to install state of the practice electronic networking to fully in	ed to suppaccomods ks and wi electronic	port curre ate our gr ide area r c network	nt busine owing networkin ing to ful	ess ig ly integra	Ţē.

BUSINESS AREA CAPITAL PURCHASES JU (\$ in Thousands)	APITAL P (\$ in Th	PITAL PURCHASE (\$ in Thousands)		STIFICATION	2			A. FY 19	A. FY 1996/1997 Bienniai Budget Estimate	Sienniai Bud Estimate	Budget nate	
B. DON/Research and Development	velopme	ıt		C. 0004	Software	C. 0004 Software Development	ment			D. NFESC, Port H	FESC, Port Hueneme	эше
		FY 1994			FY 1995			FY 1996			FY 1997	
Flowent of Coet	)	Unit	Total	, ,	Unit	Total		Unit	1		Calt	Totai
	duanic	1802	1800	Qualit	Cost	1800	Cuam	2031	C0S1	Quant	Cost	C081
Software							2		100	3		200
TOTAL									100			200
Narrative Justification:										ŀ		

base level of standardized support and appropiate level of support for distinct categories of users to evolve naturally with hardware and software applications tailored to their needs. In addition to individual workstation software compatibility the NFESC plans to implement a Command-wide Information System supported by a client/Server based platform. This capability will provide a NFESC plans to configure off-the-shelf software at end user workstation command-wide. This compatibility provides for a common basis for data analysis and supports both increased production and effective decision making.

## FY 1995 DBOF Capital Program Reconcililation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Explanation for cancellation or deferral and substitution

## Naval Surface Warfare Center FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY (\$ IN 000)

1. R&D/NSWC - Indian Head Division

	Telec. Equip./Enhanced Dynamometer Supply Substitution	009
	c. Figject was diopped from the and was replaced with buy-out of FY 1994 Cavitation Chamber Project.	
•	R&D/NSWC - Carderock Division a. Non-ADPE & Telec. Equip./SFDF High Pressure Air Sys Upgrade b. Deferred c. Deferred due to Congressional reduction to DBOF capital program	300
7.	R&D/NSWC - Crane Division a. ADPE/Network Optical Data Storage b. Cost reduced to 95K c. Remains in budget as misc. ADPE	101
<b>.</b>	R&D/NSWC - Dahlgren Division a. ADPE/ADV Graphic Engine b. Nomenclature change (includes several projects) c. Remains in budget as Scientific Visualization & VR Lab Equipment	125
• o	R&D/NSWC - Dahlgren Division a. ADPE/ADV WPNS Control Sys b. Cancelled c. Cancelled due to Congressional reduction	235
10.	. R&D/NSWC - Dahlgren Division a. ADPE/Display System Upgrade b. Nomenclature change (includes several projects) c. Remains in budget as Scientific Visualization & VR Lab Equipment	150 550
11	. R&D/NSWC - Carderock Division a. ADPE/CAD II Systems-Directorate 90 b. Reduced from 170 to 62 c Reduced due to Congressional reduction to DBOF Capital Program	170

000638

5. R&D/NSWC - Carderock Division

451	201	200	120	400
12. R&D/NSWC - Crane Division a. ADPE/Fiber Optic Network b. Cost in FY96/97 budget 450 c. Change due to rounding	a. ADPE/Replace HW 8200 Tape Dr b. Cancelled and (ADPE) substitution c. Cancelled due to going to open systems environment (Sun Computers) LAN Communication P-266, collateral equipment for the Electronic Countermeasures Systems Center, was substituted. Without this project the MILCON would not have an adequate electronic communications system.	14. R&D/NSWC - Dahlgren Division a. ADPE/Network File Server b. Cancelled c. Cancelled due to Congressional reduction	15. R&D/NSWC - Port Hueneme Division a. ADPE/Cals Desktop Publishing b. Cancelled c. Cancelled due to BRAC. This base is being closed. "Naval Mine Warfare Engineering Activity requirement.	16. R&D/NSWC - Port Hueneme Division a. ADPE/Desktop Equipment Replacement b. Cancelled c. Cancelled in favor of projects deemed to generate greater cost/productivity savings.

300	120	450	370	195	375	7908	
. R&D/NSWC - Port Hueneme Division a. ADPE/Engineering Workstations b. Cancelled c. Cancelled due to Congressional reductions to DBOF capital program	. R&D/NSWC - Port Hueneme Division a. ADPE/Optical Disk Storage - Cals b. Increase to 257K c. FY94 requirement was moved to FY95 due to late ADPE authority	R&D/NSWC - Port Hueneme Division a. ADPE/Remote Computer Sys-CALS b. Cancelled c. See item 16	R&D/NSWC - Port Hueneme Division a. ADPE/SHARE/43 Program GEN Sys b. Cancelled c. See item 16	. R&D/NSWC - Port Hueneme Division a. ADPE/VAX Cluster Replacement b. Cancelled c. Cancelled due to BRAC. This base was closedNaval Mine Warfare Engineering Activity requirement	. R&D/NSWC - Port Hueneme Division a. ADPE/VAX Upgrade b. Cancelled c. See item 16	. R&D/NSWC a. ADPE/NIMIP b. Reduced from 7908 to 2275 c. Reduced due to Congressional reduction to DBOF capital program	
17.	18.	19.	20.	21.	22.	23.	

<b>44</b> .	R&D/NSWC - Crane Division a. ADPE/EDMICS System b. Deferred and (ADPE) substitution c. Delayed until FY97 to take advantage of emerging technology and	251
	improved pricing. Substitution, Fiber Optic System was moved from out years due to emergent requirement.	120
	R&D/NSWC - Crane Division a. ADPE/Tactical Advanced Computer b. Deferred c. Delayed until FY96 to take advantage of emerging technology	101
	R&D/NSWC ~ Dahlgren Division a. ADPE/IPE Workstation b. Reduced from 150 to 105 c. Reduced due to Congressional reduction to DBOF capital program	150
	R&D/NSWC - Dahlgren Division a. ADPE/Network Upgrades b. Change in nomenclature to ADPT General Facility Upgrade c. Remains in budget as ADPT General Facility Upgrade	80
	T O M O	40
	ion. balli	128
	<ul> <li>R&amp;D/NSWC - Dahlgren Division</li> <li>a. ADPE/Workstation Upgrade</li> <li>b. Nomenclature change (includes several projects)</li> <li>c. Remains in budget as Scientific Visualization &amp; VR Lab Equipment</li> </ul>	350

65	151	295	150	130	1,68
30. R&D/NSWC - Carderock Division a. ADPE/CAD II Systems-Directorate 10 b. Combined with the CAD II Systems - Directorate 90 c. Remain in budget as CAD II Systems - Directorate 90	31. R&D/NSWC - Crane Division a. ADPE/NC/CAD-CAM System b. Nomenclature problem - same project as CAM System c. Remains in budget as CAM System	32. R&D/NSWC - Dahlgren Division a. ADPE/Contracts Filing System b. Cancelled c. Cancelled due to Congressional reduction to DBOF capital program	33. R&D/NSWC - Port Hueneme Division a. ADPE/CAD/CAM b. Cancelled c. Cancelled due to BRAC. This base was closedNaval Mine Warfare Engineering Activity requirement	34. R&D/NSWC - Port Hueneme Division a. ADPE/SHARE/43 CPU Upgrade b. Cancelled c. See item 16	35. R&D/NSWC - Dahlgren Division a. ADPE/Array Processors b. Deferred/ADPE substitution c. Emergent requirement (Algorithm Dev. Fac: SGI ONYX Computer)
C.)	(L)	ייז	r)	n	m

128

SGI ONYX Computer)

Supports new strike warfare and upper tier anti-tactical with parallel processing and high speed visualization. supports a new approach to near real time operation

ballistic missile simulation and analysis studies.

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115	160	11240	360
43. R&D/NSWC - Dahlgren Division a. Off the Shelf Software/LAN Protocol Software b. Increase to 120 c. Project cost increased	44. R&D/NSWC - Dahlgren Division a. Off the Shelf Software/Links Software b. Cancelled c. Higher priorities after Congressional budget cuts	45. R&D/NSWC  a. Software Development/NIMIP  b. Reduced to 4024  c. Reduced due to Congressional reduction to DBOF capital program	<ul> <li>46. R&amp;D/NSWC - Dahlgren</li> <li>a. Non ADP Equipment/SPY -1 RF Environmental Simulator</li> <li>b. Appears as a line item, due threshhold changes</li> <li>c. Remains in budget</li> </ul>
4	4	4	4

47. R&D/NSWC - Dahlgren
a. ADPE/Links Hardware
b. Reduced to 100
c. OSD budget reduction

. 057

## FY 1995 DBOF Capital Program Reconcilliation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Disposition of related funding
  - - Disposition of related funding

# FY 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

#### NAVY (\$ IN 000)

i.	<ol> <li>R&amp;D/ NSWC - Indian Head Division</li> <li>a. Non-ADPE &amp; Telec. Equip./Purchase Install         Casting Bell Bldg. (743)</li> <li>b. Cancelled         c. N/A - OA transferred to other NSWC activities</li> </ol>	1616
	R&D/NSWC - Crane Division a. Non-ADPE & Telec. Equip./CNC Portal-Type Mach Ctr. b. Deferred c. N/A - Obligational authority and TOA removed by Congressional action	1722
m m	R&D/NSWC - Carderock Division a. Non-ADPE & Telec. Equip./Electron Microprobe ADPE/Wide Area Network Upgrade b. Cancelled/Substitution c. Substitution	750
4.	R&D/NSWC - Carderock Division a. Non-ADPE & Telec. Equip./Magnetic Physical Modeling Fixture b. Reduced from 1080 to 500 c. N/A - Obligational authority and TOA removed by Congressional action	1080
	R&D/NSWC - Carderock Division a. Non-ADPE & Telec. Equip./Enhanced Dynamometer Supply b. Cancelled/substitution c. Cancelled. FY 1994 Cavitation Chamber Project substituted	009

Attachment

R&D/NSWC a. Non-Al b. Deferi c. N/A -	NSWC - Carderock Division Non-ADPE & Telec. Equip./SFDF High Pressure Air System Upgrade Deferred N/A - Obligational authority and TOA removed by Congressional action	300
R&D/NSWC - Crane Div a. ADPE/Network Opti b. Cost was reduced c. Remains in budget	//NSWC - Crane Division ADPE/Network Optical Data Storage Cost was reduced to 95K Remains in budget under misc. ADPE	101
R&D/NSWC - a. ADPE/ADV b. Nomencla c. Remains	/NSWC - Dahlgren Division ADPE/ADV Graphic Engine Nomenclature change (includes several projects) Remains in budget as Scientific Visualization & VR Lab Equipment	125
R&D/NSWC - Dahlgren a. ADPE/ADV WPNS Co b. Cancelled c. N/A - OA was rem	/NSWC - Dahlgren Division ADPE/ADV WPNS Control Sys Cancelled N/A - OA was removed by OSD action	235
10. R&D/NSWC - Dahl a. ADPE/Display b. Nomenclature c. Remains in b	//NSWC - Dahlgren Division ADPE/Display System Upgrade Nomenclature change (includes several projects) Remains in budget as Scientific Visualization & VR Lab Equipment	150 550
11. R&D/NSWC - a. ADPE/CAD b. Reduced c N/A - Ob	/NSWC - Carderock Division ADPE/CAD II Systems-Directorate 90 Reduced from 170 to 62 N/A - Obligational authority and TOA removed by Congressional action	170
12. R&D/NSWC - C a. ADPE/Fibe b. Cancelled c. N/A - Obl	/NSWC - Crane Division ADPE/Fiber Optic Network Cancelled N/A - Obligational authority and TOA removed by Congressional action	451

201	200	120	400	300	120	450
13. R&D/NSWC - Crane Division a. ADPE/Replace HW 8200 Tape Dr ADPE/LAN Communication P-266 b. Cancelled/Substitution c. Substitution/remaining OA transferred to NUWC	14. R&D/NSWC - Dahlgren Division a. ADPE/Network File Server b. Cancelled c. N/A - OA removed by OSD action	15. R&D/NSWC - Port Hueneme Division a. ADPE/Cals Desktop Publishing b. Cancelled c. OA transferred to NUWC	16. R&D/NSWC - Port Hueneme Division a. ADPE/Desktop Equipment Replacement b. Cancelled c. OA transferred to NUWC	17. R&D/NSWC - Port Hueneme Division a. ADPE/Engineering Workstations b. Cancelled c. N/A - Obligational authority and TOA removed by Congressional action	18. R&D/NSWC - Port Hueneme Division a. ADPE/Optical Disk Storage - Cals b. Price increase c. N/A - No disbursements	19. R&D/NSWC - Port Hueneme Division a. ADPE/Remote Computer Sys-CALS b. Cancelled c. OA transferred to NUWC

Attachment 2

370	195	375	7908	251	101	150
20. R&D/NSWC - Port Hueneme Division a. ADPE/SHARE/43 Program GEN Sys b. Cancelled c. OA transferred to NUWC	21. R&D/NSWC - Port Hueneme Division a. ADPE/VAX Cluster Replacement b. Cancelled c. OA transferred to NUWC	22. R&D/NSWC - Port Hueneme Division a. ADPE/VAX Upgrade b. Cancelled c. OA transferred to NUWC	23. R&D/NSWC a. ADPE/NIMIP b. Reduced from 7908 to 2275 c. N/A - Obligational authority and TOA removed by Congressional action	24. R&D/NSWC - Crane Division  a. ADPE/EDMICS System  ADPE/Fiber Optic System  b. Deferred/substitution  c. Substitution/remaining OA transferred to NUWC	25. R&D/NSWC - Crane Division a. ADPE/Tactical Advanced Computer b. Deferred c. OA transferred to NUWC	26. R&D/NSWC - Dahlgren Division a. ADPE/IPE Workstation b. Reduced from 150 to 105 c. N/A - Obligational authority and TOA removed by Congressional action
(N	W	CA	N	(4	N	N

Attachment 2

27.

Page

R&D/NSWC - Port Hueneme Division

a. ADPE/CAD/CAM

33.

Cancelled

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OA transferred to NUWC

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Attachment

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128

210

95

225

OA transferred to NUWC

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350

280

300	475	115	160	11240	260	250
41. R&D/NSWC - Port Hueneme Division	42. R&D/NSWC - Dahlgren Division	43. R&D/NSWC - Dahlgren Division	44. R&D/NSWC - Dahlgren Division a. Off the Shelf Software/Links Software b. Cancelled c. N/A - was removed by OSD action	45. R&D/NSWC	46. R&D/NSWC	47. R&D/NSWC
a. Telecomm/Graphic Workstation Network	a. Telecomm/Data Network	a. Off the Shelf Software/LAN Protocol Software		a. Software Development/NIMIP	a. Non ADP Equipment/SPY-1 RF Environmental Simulator	a. ADPE/Links Hardware
b. Cancelled	b. Cancelled	b. Increase to 120		b. Reduced to 4024	b. Appears as a new line item, due to threshold changes	b. Reduced to 100
c. OA transferred to NUWC	c. N/A - was removed by OSD action	c. N/A - no disbursement		c. N/A - Obligational authority and TOA removed by Congressional action	c. Remains in budget	c. N/A - OA was removed by OSD action

## FY 1995 DBOF Capital Program Reconcililation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget b.) Disposition of project: cancellation, deferral and/or substitution c.) Explanation for cancellation or deferral and substitution

### AIR WARFARE CENTERS FY 1995 DBOF CAPITAL PURCHASES

	\$600 \$879 \$249
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  NAVY (\$ in 000)	<ol> <li>Research and Development - Naval Air Warfare Center (NAWC)</li> <li>Anon-ADPE/CASS (Consolidated Automated Support System) Station Equipment</li> <li>Deferral and substitution</li> <li>C. Awalting implementation guidance. Phase I development has not been completed by the developing Activity. These dollars were transferred to:         WEPTAC II Production System         BI-Static Chamber Equipment         Congressional reduction to DBOF capital program     </li> </ol>

\$1,728

on System		ion was delaye	
er) Productic		s. Completi	hardware.
Analysis Cente		FY94 module:	ive simulation
s & Tactics		to complete	s for interacti
AC II (Weapor		OK is required	nent increases
a. Non-ADPE/WEPTAC II (Weapons & Tactics Analysis Center) Production System	b. Substitution	c. An additional \$600K is required to complete FY94 modules. Completion was delayed	due to procurement increases for interactive simulation hardware.
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\$600

\$879

	al specialized equipment needed to position targets in the chamber and	
	in the	FY94.
	largeis	during
	position	acquired
	Ξ	nts
	papaau	сошропе
	equipment	n of CPP
on	specialized	to complete installation of CPP components acquired during FN
b. Substitution	c. Additional	to complet
ف	ن	

a. Non-ADPE/Bi-Static Chamber Equipment

3. Research and Development - NAWC

2. Research and Development · NAWC

### AIR WARFARE CENTERS FY 1995 DBOF CAPITAL PURCHASES

		\$920 \$830
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS	NAVY (\$ in 000)	Research and Development · NAWC  a. Non-ADPE/Advanced Multiple Emitter System  b. Cancellation and Substitution  c. The Pt. Mugu system acquired with FY93 CPP funds will be sufficient to meet the needs of both Pt. Mugu and China Lake. Funds were reprogrammed to  High Off-Boresight Angle Table  Cancelled due to Congressional reduction to DBOF capital program.

\$1,750

ત્વં	a. Non-ADPE/High Off-Boresight Angle Table	
ف	b. Substitution	
ပ	c. This line item is to meet the advanced capability requirement to test leading-edge	
	guldance systems.	

5. Research and Development - NAWC

NAWC	
lopment -	
and Deve	
Research	
œ	,

\$499

\$920

\$469

ત્તું	ADPE/Procurement Workstation System Upgrade	ent Worl	station	System	Upgrade	
نه	b. Cancellation					
ပ	c. Congressional re	aduction	to DBO	F capita	al reduction to DBOF capital program	

NAWC
•
Development
and
Research
7.

Processing	
<u> 1</u>	
Computer	
ADPE/Distributed	
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Cancellation ن نو

Congressional reduction to DBOF capital program

### AIR WARFARE CENTERS FY 1995 DBOF CAPITAL PURCHASES

		able category. tal program.	the am.		\$1,126	\$604	\$200	\$190	\$365	\$3	\$15
FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS	NAVY (\$ in 000)	<ul> <li>8. Research and Development · NAWC</li> <li>a. ADPE/Cable to New Construction</li> <li>b. Cancellation and substitution</li> <li>c. The Cable to New Construction was completed during FY94. Therefore, 575K of the Cable to New Construction line item was transferred to a line item in the less than \$100K category.</li> <li>10 New Construction line item was transferred to a line item in the less than \$100K category.</li> <li>The remaining \$25K was cancelled due to Congressional reduction to the DBOF capital program.</li> </ul>	<ul> <li>9. Research and Development · NAWC</li> <li>a. ADPE/Engineering Data Management Information and Control System (EDMICS)</li> <li>b. Deferral</li> <li>c. Some of the weapons systems EDMICS is to support are not yet in place. Therefore, the EDMICS program is being implemented in a phased approach. These dollars were not reprogrammed in FY95 due to the Congressional reduction to the DBOF capital program.</li> </ul>	<ul> <li>40. Research and Development - NAWC</li> <li>a. ADPE/Tandem TXP Computer Upgrade</li> <li>b. Cancellation and substitution</li> <li>c. The upgrade to the Tandem Computer was acquired under BRAC.</li> </ul>		Common Property System	Software Engineering Environment	PM MABS Expansion Warehouse	Replacement Hems for C-LAN	Technical Information Support System	Congressional reduction to DBOF capital program

\$2,800

\$100

\$2,500

## FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

\$1,126

DEFERRAÇA, CANCELEA HORS, 3053 HORSE	(\$ in 000)	<ul> <li>11. Research and Development - NAWC</li> <li>a. ADPE/Image System</li> <li>b. Substitution</li> <li>c. The Image System is in response to a NAWCWD consolidated need to reduce dependence on a paper-based system and to comply with the Paper Reduction Act of 1986.</li> </ul>	<ul> <li>12. Research and Development - NAWC</li> <li>a. ADPE/Common Property System</li> <li>b. Substitution</li> <li>c. The line item responds to the NAWC requirement to implement a common plant property system.</li> </ul>	<ul> <li>13. Research and Development · NAWC</li> <li>a. ADPE/Software Engineering Environment</li> <li>b. Substitution</li> <li>c. This line item is required for computer upgrades to maintain the integrity of the computer system which supports the Embedded Computer Facility.</li> </ul>	<ul> <li>14. Research and Development - NAWC</li> <li>a. ADPE/PM MARS (Pt. Mugu Multi-User Archival &amp; Retrieval System) Expansion Warehouse</li> <li>b. Substitution</li> <li>c. This line item is in response to the critical need for a common NAWC archival/retrieval system for payroll packages and fund documents. The most cost-effective way to do this was to expand the existing China Lake MARS system to include Pt. Mugu.</li> </ul>
		<b>8</b>			ieval

\$190

\$200

### FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ in 000)

15. Research and Development · NAWC

\$710 \$710 \$710	\$710
= 0 = 0 = 0 = E = = = = = = = = = = = =	ADPE/Technical Inform Substitution From: ( From: The current Technical upgrade will maintain

\$713

\$700

\$1,410

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### DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

### (\$ In 000) NAVY

			\$332	\$170	\$130	\$131	\$116	\$111
<ol> <li>19. Research and Development · NAWC</li> <li>a. ADPE/CALS Module Integrated Electronic Technical Manual/Pubs</li> <li>b. Deferral and Substitution</li> </ol>	<ul> <li>c. The CALS Module for technical manual/pubs supports the deferred CALS/CADtl line item. By necessity this line item is deferred and will be implemented in a</li> </ul>	phased approach. These dollars have been reprogrammed to:	ATR Real-Time Technology Development	Soltware Workstation Upgrade	Optical Disk System	NAWC DBOF System	Secure Network	NAWC Corporate Budget System

evelopment		Automated
chnology D		ice common
Real-Time Te		the Tri-Servi
Recognition) F		articipation in
Target		ed for p
ADPE/ATR (Automatic Target Recognition) Real-Time Technology Development	Substitution	This system is required for participation in the Tri-Service common Automated
a. A	ē. Sī	c. 1

20. Research and Development - NAWC

- cipation in the Tri-Service common Automated Target Recognition project.
- 21. Research and Development · NAWC
- ADPE/Soltware Workstation Upgrade ن غه
  - Substitution
- Obsolete computing platforms need to be upgraded and replaced.

\$170

## FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ in 000)

Research and Development - NAWC
 ADPE/Optical Disk System

\$130

\$131

b. Substitution

Upgrading the current manual filing/storage and retrieval system to an optical system This is a requirement brought about by the downsizing of human resources. cost-effective solution.

23. Research and Development - NAWC

ADPE/NAWC DBOF System

b. Substitution

This line item meets a replacement requirement. Phase I is for FY95 to replace obsolete he increased workload. This system performs Defense Business Operating Fund (DBOF) computers which are 6.8 years old. These obsolete machines are unable to support financial and management services.

24. Research and Development - NAWC

ADPE/Secure Network

b. Substitution

Within a secure environment, a network for the exchange of electronic documents was required to replace the current paper-intensive system.

25. Research and Development - NAWC

a. ADPE/NAWC Corporate Budget System

Substitution

Increased external reporting necessitated upgrading existing computer technology.

\$116

### **DEFERRALS, CANCELLATIONS, SUBSTITUTIONS** FY 1995 DBOF CAPITAL PURCHASES

### (\$ In 000) NAV

\$125

		c. Congressional reduction to DBOF capital program
pgrades		luction to DB
a. ADPE/Software Upgrades	b. Cancellation	Congressional red
<b>d</b>	Þ.	ن ن

26. Research and Development - NAWC

27. Research and Development - NAWC

a. ADPE/Xerox 4050 Printer

Cancellation

Congressional reduction to DBOF capital program

a. ADPE/Productivity Software (CASE, CAD) 28. Research and Development - NAWC

b. Cancellation c. Congressional reduction to DBOF capital program

\$100

### FY 1995 DBOF ( AL PURCHASES DEFERRALS, CANCELLA TIONS, SUBSTITUTIONS

### (\$ IN 000)

		\$1,300		\$1,300	
ASES ITTUTIONS			\$1,300		\$.905 \$ 395
FY 1995 DBOF C AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS	NAVY (\$ IN 000)	<ul> <li>32. Research and Development - NAWC</li> <li>a. Non-ADPE/Maritime Multimission Interoperability Center</li> <li>b. Cancellation and Non-ADPE Substitution</li> <li>c. A review was conducted between MRTFB and DBOF and this item was identified to be an MRTFB asset. Therefore, it will be supported under</li> </ul>	the RDT&E Program Element 0605864.  Substitution - Non-ADPE <\$500K  33. Research and Development - NAWC	<ul> <li>a. Non-ADPE/VXIBUS System (IAWS)</li> <li>b. Cancellation and Non-ADPE and ADPE Substitutions</li> <li>c. A review was conducted between MRTFB and DBOF and this item was identified to be an MRTFB asset. Therefore, it will be supported under the RDT&amp;E Program Element 0605864.</li> </ul>	Substitution - COTS Simulation System Non-ADPE <\$500K

### FY 1995 DBOF C AL PURCHASES DEFERRALS, CANCELLA ITONS, SUBSTITUTIONS

(\$ IN 000)

\$ 971 \$ 291 \$ 242 \$ 100 \$ 100 \$ 210	\$ 810 \$ 401 \$ 350 \$ 59	\$ 450 \$ 153 \$ 128 \$ 141
a. ADPE/Data Processing Systems  b. Cancellation and Non-ADPE and ADPE Substitutions  c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed. Substitutions - UNIX Corporate Server Environment Expansion  ADP Equipment Upgrades Classified Data Processing 64-Bit Multi-Processing Resources Automated Mgmt System Non-ADPE <\$500K	36. Research and Development - NAWC  a. ADPE/DFS Aerodynamic System  b. Cancellation and Non-ADPE and ADPE Substitutions  c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.  Substitutions - Optical Disk archiving System  TAC 4 and AFMSS Mission Planning System  Non-ADPE <\$500K	37. Research and Development - NAWC  a. ADPE/Centrifuge Control System b. Cancellation and Non-ADPE and ADPE Substitutions c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed. Substitutions - Confocal Microscopy System Helicopter cockpit Training System X-Ray Diffraction Upgrade Some ADPE <\$500K

### FY 1995 DBOFC AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

	\$ 410	\$ 550	\$ 905	\$ 563
	\$ 390 \$ 20	\$ 563 \$ (13)		
NAVY (\$ IN 000)	<ul> <li>38. Research and Development - NAWC</li> <li>a. ADPE/Owl Laser System Enhancements</li> <li>b. Cancellation and Non-ADPE and ADPE Substitutions</li> <li>c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.</li> <li>Substitutions - Aircrew Prototyping System Non-ADPE &lt;\$500K</li> </ul>	<ul> <li>39. Research and Development - NAWC</li> <li>a. ADPE/Core Computer Final Configuration</li> <li>b. Cancellation and Non-ADPE and ADPE Substitutions</li> <li>c. During an evaluation of the existing areas and the stand-up of a Competency Aligned</li> <li>Organization in FY95, this equipment was determined to be a lower priority and was replaced with other equipment more urgently needed.</li> <li>Substitutions - Reconfiguration Crewstation Upgrade</li> <li>Non-ADPE &lt;\$500K</li> </ul>	<ul> <li>40. Research and Development - NAWC</li> <li>a. ADPE/COTS Simulation System</li> <li>b. Substitution for VXIBUS System (IAWS)</li> <li>c. This equipment will aid in the transportation of VP simulation information. It will support tactical mission programs and system test development programs.</li> </ul>	<ul> <li>41. Research and Development - NAWC</li> <li>a. ADPE/Reconfiguration Crewstation Upgrade</li> <li>b. Substitution for Core Computer Final Configuration</li> <li>c. This equipment will enable NAWCAD to met the needs of sponsors and to maintain its leadership in advanced automation technology.</li> </ul>

### FY 1995 DBOF ( AL PURCHASES DEFERRALS, CANCELLA ITONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

<ul> <li>a. ADPE/Optical Disk Archiving System</li> <li>b. Substitution for DFS Aerodynamic System</li> <li>c. Our mission and support to our current users is not being met in a timely manner with the current equipment. Demands on optical disk storage and timely system performance have nessecitated the need for this item.</li> </ul>	<b>\$</b> 401
<ul> <li>43. Research and Development - NAWC</li> <li>a. ADPE/Aircrew Prototyping Station</li> <li>b. Substitution for Owl Laser System Enhancements</li> <li>c. This equipment will enable NAWC to perform its work assignments in the development of rapid design and evaluation of flight crew avionics.</li> </ul>	\$ 390
<ul> <li>44. Research and Development - NAWC</li> <li>a. ADPE/TAC 4 and AFMSS Mission Planning System</li> <li>b. Substitution for DFS Aerodynamic System</li> <li>c. This equipment will enable NAWCAD to fulfill the requirements for shipboard and shore-based computing.</li> </ul>	\$ 350
<ul> <li>45. Research and Development - NAWC</li> <li>a. ADPE/UNIX Corporate Server Environment Expansion</li> <li>b. Substitution for Data Processing Systems</li> <li>c. This equipment will enable current servers to meet project deadlines.</li> </ul>	\$ 291
<ul> <li>46. Research and Development - NAWC</li> <li>a. ADPE/Blue Hose Installation for NAS</li> <li>b. Substitution for Motion Simulation Table</li> <li>c. Several functions under the Naval Air Station are interrelated; a networking atmosphere will give the NAS the flexibility to accomodate response time and produce accurate results. With the downsizing workforce, efficiency and productivity must be improved. Local area networking will be the most significant factor in the effort to perform more work with less personnel.</li> </ul>	\$ 264

### FY 1995 DBOFC AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

\$ 260

\$ 242

<ul> <li>47. Research and Development - NAWC</li> <li>a. ADPE/UH-IN Avionics Tracking Suite</li> <li>b. Substitution for Anechoic Chamber Bldg 120</li> <li>c. This equipment will provide reliable avionics simulation.</li> </ul>	<ul> <li>48. Research and Development - NAWC</li> <li>a. ADPE/ADP Equipment Upgrades</li> <li>b. Substitution for Data Processing Systems</li> <li>c. Many of the Naval Air Station functions are still manually maintained. This equipment</li> <li>will allow current operations to become automated and will improve the efficiency of data retrieval and storage.</li> </ul>	<ul> <li>49. Research and Development - NAWC</li> <li>a. ADPE/Imbedded Pilot Proficiency</li> <li>b. Substitution for Anechoic Chamber Bldg. 120</li> <li>c. This equipment will facilitate the collection and analysis of data to improve the pilot proficiency system.</li> </ul>	<ul> <li>So. Research and Development - NAWC</li> <li>a. ADPE/DCCF Upgrade</li> <li>b. Substitution for Motion Simulation Table</li> <li>c. This equipment has been determined a higher priority because of the need to provide reliable, timely, accurate, and valuable corporate information system resources to users. With the increased workload the needs of our users is being severely impacted.</li> </ul>	<ul> <li>a. ADPE/Confocal Microscopy System</li> <li>b. Substitution for Centrifuge Control System</li> <li>c. This equipment will make valuable information obtainable. Data storage, image enhancement, and information retrieval will become available for microscopy. This will improve the transfer of information to sponsors and the fleet.</li> </ul>
47. R	48. R	49. R	50. R	51. R

\$ 242

### FY 1995 DBOF ( AL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

52. Research and Development - NAWC a. ADPE/X-Ray Diffraction Upgrade

\$ 140

\$ 141

\$ 128

<ul> <li>b. Substitution for Centrifuge Control System</li> <li>c. This equipment will enable NAWCAD to maintain a credible X-Ray Diffraction Facility.</li> </ul>	<ul> <li>53. Research and Development - NAWC</li> <li>a. ADPE/COTS Facility H/W ASQ-212</li> <li>b. Substitution for Teradyne Zehntel 8500 Test System</li> <li>c. This equipment will provide software production capability for VP during the transition of the VP facilities from Warminster to Patuxent River.</li> </ul>	<ul> <li>S4. Research and Development - NAWC</li> <li>a. ADPE/Helicopter Cockpit Training System</li> <li>b. Substitution for Centrifuge Control System</li> <li>c. This equipment will allow the Vertical Flight sponsors to view functional requirements in the early stages of conceptual design, minimizing the impact of implementations which do not exactly meet the sponsors needs. This equipment will provide Vertical flight Systems the capability to prototype helicopter cockpit displays and layouts using Virtual Reality concepts.</li> </ul>	<ul> <li>55. Research and Development - NAWC</li> <li>a. ADPE/Maintenance Control System</li> <li>b. Substitution for Motion Simulation Table</li> <li>c. This equipment will provide adequate support to the AN/AYK-10 General Purpose Digital Computer that will support the current Maintenance Panel.</li> </ul>	<ul> <li>S6. Research and Development - NAWC</li> <li>a. ADPE/Classified Data Processing</li> <li>b. Substitution for Data Processing Systems</li> <li>c. This equipment will support the movement of engineers from Warminster to Patuxent</li> <li>River by providing classified flight test and engine data required without</li> <li>delaying test programs and delivery schedules for aircraft.</li> </ul>

00I \$

### FY 1995 DBOFC AL PURCHASES DEFERRALS, CANCELLA TIONS, SUBSTITUTIONS

### (\$ IN 000)

001 <b>\$</b>	\$ 210	0 <del>1</del>
<ul> <li>S7. Research and Development - NAWC</li> <li>a. ADPE/64-Bit Multi-Processing</li> <li>b. Substitution for Data Processing Systems</li> <li>c. This equipment will provide enginners with reduced flight test data in a timely manner, thereby preventing the delay of test programs and operational evaluation periods for base aircraft.</li> </ul>	<ul> <li>S8. Research and Development - NAWC</li> <li>a. ADPE/Resources Automated Mgmt System (RAMS)</li> <li>b. Substitution for Data Processing Systems</li> <li>c. The RAMS will manage resource data for various sites as well as provide support for mission activities. It will support the informational needs of resource managers.</li> </ul>	<ul> <li>S9. Research and Development - NAWC</li> <li>a. ADPE/Switch Upgrade</li> <li>b. Substitution for Motion Simulation Table</li> <li>c. The consolidation of St. Inigoes and Patuxent River in FY95 has made this item a requirement for NAWC.</li> </ul>

## FY 1995 DBOF Capital Program Reconcililation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Disposition of related funding

\$1,728

FV 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS NAVY (\$ in 000) 1. Research and Development · Naval Air Warfare Center (NAWC)	
<ul> <li>a. Non-ADPE/CASS (Consolidated Automated Support System) Station Equipment</li> <li>b. Deferral and Substitution</li> <li>c. Funding for this deferred item was transferred to</li> <li>WEPTAC II Production System</li> <li>Bi-Static Chamber Equipment</li> </ul>	\$600
N/AObligational authority and TOA removed by Congressional action  Due to the substitution, DBOF cash was not affected.	\$2.49 6
<ol> <li>Research and Development - NAWC</li> <li>a. Non-ADPE/WEPTAC II (Weapons &amp; Tactics Analysis Center) Production System</li> <li>b. Substitution</li> <li>c. Funding for this item was transferred from the CASS Station Equipment line item.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ol>	
<ol> <li>Research and Development - NAWC</li> <li>a. Non-ADPE/Bi-Static Chamber Equipment</li> <li>b. Substitution</li> <li>c. Funding to meet this substitution was transferred from CASS Station Equipment line item.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ol>	
Research and Development - NAWC  a. Non-ADPE/Advanced Multiple Emitter System b. Cancellation and Substitution c. Funds were reprogrammed to: High Off-Boresight Angle Table  N/AObligational authority and TOA removed by Congressional action  Due to the substitution, DBOF cash was not affected.	\$920 \$830

\$600

\$879

\$1,750

# FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  NAVY (\$ in 000)	<ol> <li>Research and Development - NAWC</li> <li>a. Non-ADPE/High Off-Boresight Angle Table</li> <li>b. Substitution</li> <li>c. Funding for this line item was transferred from Advanced Multiple Emitter System.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ol>	<ul> <li>6. Research and Development · NAWC</li> <li>a. ADPE/Procurement Workstation System Upgrade</li> <li>b. Cancellation</li> <li>c. N/A··Obligational authority and TOA removed by Congressional action</li> </ul>	7. Research and Development · NAWC a. ADPE/Distributed Computer Info Processing b. Cancellation c. N/A··Obligational authority and TOA removed by Congressional action	<ul> <li>B. Research and Development - NAWC</li> <li>a. ADPE/Cable to New Construction</li> <li>b. Cancellation and substitution</li> <li>c. Of this line item, \$75K was transferred to the less than \$100K category.</li> <li>N/A.·Obligational authority and TOA removed by Congressional action</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>9. Research and Development - NAWC</li> <li>a. ADPE/Engineering Data Management Information and Control System (EDMICS)</li> <li>b. Deterrat</li> <li>c. Due to the Congressional reduction to DBOF capital program, these dollars were not reprogrammed. N/AObligational authority and TOA removed by Congressional action.</li> </ul>
	- <del></del>				

\$499

\$469

\$100

\$75 \$25

### FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES NAV

(s) in 000)

AWC
•
pment
evelo
and D
Research

Upgrade
Computer
TXP (
<b>Fandem</b>
ADPE/
_

\$2,500

- Cancellation and substitution
- . The upgrade to the Tandem Computer was acquired with BRAC funding.

<b>t</b> o:	
reprogrammed	
Was	
Funding	

	y was reprogrammed to:	
irty System neering Environment insion Warehouse lems for C-LAN imation Support System at authority and TOA removed by Congressional action	made System	\$1,126
	Common Property System	\$604
	Software Engineering Environment	\$200
	PM MARS Expansion Warehouse	\$190
4	Replacement Items for C-LAN	\$365
	Technical information Support System	\$3
	N/AObligational authority and TOA removed by Congressional action	\$12

Due to these substitutions, DBOF cash was not affected.

### 11. Research and Development · NAWC

- a. ADPE/image System
  - b. Substitution
- Funding for the Image System is transferred from the Tandem Computer line item. Due to the substitution, DBOF cash was not affected.

### 12. Research and Development - NAWC

- a. ADPE/Common Property System
- b. Substitution
- Funding for the Common Property System is transferred from the Tandem Computer line item. Due to the substitution, DBOF cash was not affected.

\$200

				\$710
FY 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS NAVY (\$ in 000)	<ul> <li>13. Research and Development - NAWC</li> <li>a. ADPE/Software Engineering Environment</li> <li>b. Substitution</li> <li>c. Funding for the Software Engineering Environment is transferred from the Tandem</li> <li>Computer line item. Due to this substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>14. Research and Development - NAWC</li> <li>a. ADPE/PM MARS (Pt. Mugu Multi-User Archival &amp; Retrieval System) Expansion Warehouse</li> <li>b. Substitution</li> <li>c. Funding for the PM MARS Expansion Warehouse is transferred from the Tandem</li> <li>Computer tine item. Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>15. Research and Development - NAWC</li> <li>a. ADPE/Replacement Items for C-LAN (Communication Local Area Network)</li> <li>b. Substitution</li> <li>c. Funding for these replacement items was transferred from the Tandem Computer line item.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>16. Research and Development - NAWC</li> <li>a. ADPE/CALS CADIf (Computer Aided Logistics System &amp; Computer Aided Design II)</li> <li>b. Deferral and Substitution</li> <li>c. Funding from the deferred CALS/CADII line item was transferred to: Simulation Network Debrief System Technical Information Support System</li> <li>Due to these substitutions, DBOF cash was not affected.</li> </ul>

# FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  NAVY (\$ in 000)	
<ul> <li>17. Research and Development - NAWC</li> <li>a. ADPE/Simulation Network Debrief System</li> <li>b. Substitution</li> <li>c. Funding for this item was transferred from the CALS CADII line item.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	
<ul> <li>18. Research and Development - NAWC</li> <li>a. ADPE/Technical Information Support System</li> <li>b. Substitution</li> <li>c. Funding for this line item was transferred from the CALS/CADII tine item and the Tandem Computer line item.</li> <li>Due to these substitutions, DBOF cash was not affected.</li> </ul>	\$3
a. ADPE/CALS Module Integrated Electronic Technical Manual/Pubs b. Deferral and Substitution c. Funds for this deferred line item have been transferred to: ATR Real-Time Technology Development Software Workstation Upgrade Optical Disk System NAWC DBOF System Secure Network NAWC Corporate Budget System Due to these substitutions, DBOF cash was not affected.	\$332 \$170 \$130 \$131 \$1116

066\$

\$713

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  NAVY  (\$ in 000)	<ul> <li>20. Research and Development - NAWC</li> <li>a. ADPE/ATR (Automatic Target Recognition) Real-Time Technology Development</li> <li>b. Substitution</li> <li>c. Funding for this line item to participate in the Tri-Service Automatic Target Recognition project was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs.</li> <li>Due to these substitutions, DBOF cash was not affected.</li> </ul>	<ul> <li>21. Research and Development - NAWC</li> <li>a. ADPE/Software Workstation Upgrade</li> <li>b. Substitution</li> <li>c. Funding for these upgrades was transferred from the CALS Module integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.</li> </ul>	a. ADPE/Optical Disk System b. Substitution c. Funding for this upgrade to an Optical Disk System was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.	<ul> <li>23. Research and Development - NAWC</li> <li>a. ADPE/NAWC DBOF System</li> <li>b. Substitution</li> <li>c. Funding for the replacement of obsolete computers was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.</li> </ul>
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\$130

\$170

\$332

### FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

\$116

\$111

\$125

\$101

<ul> <li>27. Research and Development · NAWC</li> <li>a. ADPE/Xerox 4050 Printer</li> <li>b. Cancellation</li> <li>c. N/A·-Obligational authority and TOA removed by Congressional action</li> </ul>
Development - NAWC C Corporate Budget System on upgrade the obsolete computer technology was transfe Electronic Manual/Pubs line item. Due to this subst not affected.  Development - NAWC vare Upgrades on Itional authority and TOA removed by Congressional tional authority and TOA removed by Congressional itional authority and TOA removed by Congressional itional authority and TOA removed by Congressional

\$100

b. Cancellation c. N/A--Obligational authority and TOA removed by Congressional action

# FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

\$ 710 \$ 559 \$ 140 \$ 11	\$ 700 \$ 110 \$ 120 \$ 264 \$ 180 \$ 26	\$ 500 \$ 260 \$ 242 \$ (2)
<ul> <li>29. Research and Development - Naval Air Warfare Center (NAWC)</li> <li>a. Non-ADPE/Teradyne Zehntel 8500 Test System</li> <li>b. Cancellation and Non-ADPE and ADPE substitutions</li> <li>c. Funding for this item was transferred to:</li></ul>	30. Research and Development - NAWC  a. Non-ADPE/Motion Simulation Table  b. Cancellation and Non-ADPE and ADPE substitutions  c. Funding for this item was transferred to:  Switch Upgrade  Maintenance Control System  Blue Hose Installation for NAS  DCCF Upgrade  Non-ADPE <\$500K  Due to the substitutions, DBOF cash was not affected.	31. Research and Development - NAWC  a. Non-ADPE/Anechoic Chamber Bldg 120 b. Cancellation and Non-ADPE and ADPE substitutions c. Funding for this item was transferred to: UH-1N Avionics Tracking Suite Imbedded Pilot Proficiency Non-ADPE <\$500K  Due to the substitutions, DBOF cash was not affected.

## FY 1995 DBOF ( AL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### (\$ IN 000)

<ul> <li>32. Research and Development - NAWC</li> <li>a. Non-ADPE/Maritime Multimission Interoperability Center</li> <li>b. Cancellation and Non-ADPE substitution</li> <li>c. Funding for this item was transferred to:</li></ul>	\$1,300
<ul> <li>33. Research and Development - NAWC</li> <li>a. Non-ADPE/VXIBUS System (IAWS)</li> <li>b. Cancellation and Non-ADPE and ADPE substitutions</li> <li>c. Funding for this item was transferred to:</li></ul>	\$1,300 \$ 905 \$ 395
<ul> <li>34. Research and Development - NAWC</li> <li>a. ADPE/Computer Aided Graphics Workstations</li> <li>b. Substitution</li> <li>c. Funding for this items was transferred from the Teradyne Zehntel 8500 Test System.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	. 623
<ul> <li>35. Research and Development - NAWC</li> <li>a. ADPE/Data Processing Systems</li> <li>b. Cancellation and Non-ADPE and ADPE substitutions</li> <li>c. Funding for this item was transferred to:</li> </ul>	\$ 971
UNIX Corporate Server Environment Expansion  ADP Equipment Upgrades Classified Data Processing 64-Bit Multi-Processing Resources Automated Mgmt System Non-ADPE <\$500K  Due to the substitutions, DBOF cash was not affected.	\$ 291 \$ 242 \$ 100 \$ 100 \$ 210 \$ 28

# FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

\$ 810 \$ 401 \$ 350 \$ 59	\$ 450	\$ 153 \$ 128 \$ 141 \$ 28	\$ 410 \$ 390 \$ 20	\$ 550
<ul> <li>36. Research and Development - NAWC</li> <li>a. ADPE/DFS Aerodynamic System</li> <li>b. Cancellation and Non-ADPE and ADPE substitutions</li> <li>c. Funding for this item was transferred to:         <ul> <li>Optical Disk Archiving System</li> <li>Tac-4 and AFMSS Mission Planning System</li> <li>Non-ADPE &lt;\$500K</li> </ul> </li> <li>Due to the substitutions. DBOF cash was not affected</li> </ul>	<ul><li>37. Research and Development - NAWC</li><li>a. ADPE/Centrifuge Control System</li><li>b. Cancellation and Non-ADPE and ADPE substitutions</li><li>c. Funding for this item was transferred to:</li></ul>	Confocal Microscopy System Helicopter Cockpit Training System X-Ray Diffraction Upgrade Non-ADPE <\$500K Due to the substitutions, DBOF cash was not affected.	38. Research and Development - NAWC  a. ADPE/Owl Laser System Enhancements b. Cancellation and Non-ADPE and ADPE substitutions c. Funding for this item was transferred to: Aircrew Prototyping System Non-ADPE <\$500K  Due to the substitutions, DBOF cash was not affected.	39. Research and Development - NAWC  a. ADPE/Core Computer Final Configuration  b. Cancellation and Non-ADPE and ADPE substitutions

# FY 1995 DBOFC AL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

	\$ 905	\$ 563	\$ 401	\$ 390	\$ 350
NAVY (\$ IN 000)	<ul> <li>40. Research and Development - NAWC</li> <li>a. ADPE/COTS Simulation System</li> <li>b. Substitution</li> <li>c. Funding for this item was transferred from the VXIBUS System (IAWS). Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>41. Research and Development - NAWC</li> <li>a. ADPEReconfiguration Crewstation Upgrade</li> <li>b. Substitution</li> <li>c. Funding for this item was transferred from the Core Computer Final Configuration.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>42. Research and Development - NAWC</li> <li>a. ADPE/Optical Disk Archiving System</li> <li>b. Substitution</li> <li>c. Funding for the Optical Disk Archiving System was transferred from the DFS</li> <li>Aerodynamic System. Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>43. Research and Development - NAWC</li> <li>a. ADPE/Aircrew Prototyping Station</li> <li>b. Substitution</li> <li>c. Funding for the Aircrew Prototyping Station was transferred from the Owl Laser</li> <li>System Enhancements. Due to the substitution, DBOF cash was not affected.</li> </ul>	<ul> <li>44. Research and Development - NAWC</li> <li>a. ADPE/TAC 4 and AFMSS Mission Planning System</li> <li>b. Substitution</li> <li>c. Funding for the TAC 4 and AFMSS Mission Planning System was transferred from the DFS Aerodynamic System. Due to the substitution, DBOF cash was not affected.</li> </ul>

## FY 1995 DBOF ( AL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

45. Research and Development - NAWC

	a. ADPE/UNIX Corporate Server Environment Expansion b. Substitution	\$ 291
	c. Funding for the UNIX Corporate Server Environment Expansion was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.	
46	46. Research and Development - NAWC  a. ADPE/Blue Hose Installation for NAS  b. Substitution	\$ 264
	c. Funding for this tieffi was trained from the Motion Simulation Table.  Due to the substitution, DBOF cash was not affected.	
47	47. Research and Development - NAWC  a. ADPE/UH-1N Avionics Tracking Suite  b. Substitution	\$ 260
	c. Funding for this item was transferred from the Anechoic Chamber Bldg. 120.  Due to the substitution, DBOF cash was not affected.	
84	48. Research and Development - NAWC a. ADPE/ADP Equipment Upgrades b. Substitution	\$ 242
	c. Funding for this item was transferred from the Data Processing Systems.  Due to the substitution, DBOF cash was not affected.	
4	<ul><li>49. Research and Development - NAWC</li><li>a. ADPE/Imbedded Pilot Proficiency</li><li>b. Substitution</li></ul>	\$ 242
	<ul> <li>c. Funding for this item was transferred from the Anechoic Chamber Bldg. 120.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	

# FY 1995 DBOPC AL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### NAVY (\$ IN 000)

<ul> <li>50. Research and Development - NAWC</li> <li>a. ADPE/DCCF Upgrade</li> <li>b. Substitution</li> <li>c. Funding for this item was transferred from the Motion Simulation Table. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 180
<ul> <li>51. Research and Development - NAWC</li> <li>a. ADPE/Confocal Microscopy System</li> <li>b. Substitution</li> <li>c. Funding for the Confocal Microscopy System was transferred from the Centrifuge</li> <li>Control System. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 153
<ul> <li>S2. Research and Development - NAWC</li> <li>a. ADPE/X-Ray Diffraction Upgrade</li> <li>b. Substitution</li> <li>c. Funding for the X-Ray Diffraction Upgrade was transferred from the Centrifuge Control</li> <li>System. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 141
<ul> <li>53. Research and Development - NAWC</li> <li>a. ADPE/COTS Facility H/W ASQ-212</li> <li>b. Substitution</li> <li>c. Funding for the COTS Facility H/W ASQ-212 was transferred from the Teradyne Zehntel</li> <li>8500 test System. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 140
<ul> <li>54. Research and Development - NAWC</li> <li>a. ADPEHelicopter Cockpit Training System</li> <li>b. Substitution</li> <li>c. Funding for the Helicopter Cockpit Training System was transferred from the Centrifuge Control System. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 128

# FY 1995 DBOF C AL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### (\$ IN 000)

<ul> <li>55. Research and Development - NAWC</li> <li>a. ADPE/Maintenance Control System</li> <li>b. Substitution</li> <li>c. Funding for the Maintenance Control System was transferred from the Motion Simulation Table. Due to the substitution, DBOF cash was not affected.</li> </ul>	\$ 120
<ul> <li>56. Research and Development - NAWC</li> <li>a. ADPE/Classified Data Processing</li> <li>b. Substitution</li> <li>c. Funding for the Classified Data Processing was transferred from the Data Processing Systems.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	<b>%</b> 100
<ul> <li>57. Research and Development - NAWC</li> <li>a. ADPE/64-Bit Multi-Processing</li> <li>b. Substitution</li> <li>c. Funding for the 64-Bit Multi-Processing was transferred from the Data Processing Systems.</li> <li>Due to the substitution, DBOF cash was not affected.</li> </ul>	<b>9</b> 100
58. Research and Development - NAWC  a. ADPE/Resources Automated Mgmt System b. Substitution c. Funding for the Resource Automated Mgmt System was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.	\$ 210
<ul> <li>Sesearch and Development - NAWC</li> <li>a. ADPE/Switch Upgrade</li> <li>b. Substitution</li> <li>c. Funding for the Switch Upgrade was transferred from the Motion Simulation Table.</li> <li>Due to the substitutuion, DBOF cash was not affected.</li> </ul>	· 011 <b>\$</b>

# FY 1995 DBOF Capital Program Reconcilliation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Explanation for cancellation or deferral and substitution

### NAVAL UNDERSEA WARFARE CENTER FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### Department of the Navy (\$ In 000)

R&D - Navai Undersea Warfare Center		
a. Environmental Non-ADP Equipment (Minor)	712	
b. Substitution		
c. New Requirement as reported and approved in budget submitted 6/94 for Tow Body &	200	
Will be used to collect data to determine environmental effects in shallow water that		
impact acoustic detection and classification.		
New Requirement as reported and approved in budget submitted 6/94 for Transducer	212	
Huli Array Lab Upgrade (L086)		

Will be used for the design and development of transducers and arrays for future sonar systems.

તાં	R&D - Navai Undersea Warfare Center	
	a. Productivity Non-ADP Equipment (Minor)	1936
	b. Substitution	
	c. New Requirement as reported and approved in budget submitted 6/94 for Deep Dept	1064
	Diameter Pressure Vessel (L091)	
	Will provide NUWC with the the required vessel for conducting full pressure depth	
	sound vibration testing of large diameter heavyweight vehicles under operating conditions.	
	New Requirement as reported and approved in budget submitted 6/94 for Antenna Re	512

New Requirement as reported and approved in budget submitted 6/94 for ESM Test E Will provide an up-to-date facility for conducting research and development and testing of communication systems for future submarines.

Modernization (L097)

360

Will provide NUWC with the facility for evaluating equipment designs and architecture for use in an automated Electronic Support Measures (ESM) system.

## NAVAL UNDERSEA WARFARE CENTER FY 1995 DBOF CAPITAL PURCHASES DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### Department of the Navy (\$ in 000)

R&D - Navai Undersea Warfare Center

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	a. Productivity ADP Equipment/High Performance Workstations (L021)	300
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
4	R&D - Navai Undersea Warfare Center	
	a. New Mission ADP Equipment (AAA 6000 Opgrade (L043)  b. Cancellation	<b>707</b>
	c. Congressional reduction to DBOF capital program.	
5.	R&D - Navai Undersea Warfare Center	
	a. Replacement ADP Equipment (Minor)	260
	b. Substitution	
	c. New Requirement as reported and approved in budget submitted 6/94 for Secure into	107
	Communications Connection (L062)	
	Will be used to link dissimilar facilities at geographically remote sites in such a manner	
	to allow their simulated entitles to be exercised concurrently in a virtual environment as	
	part of a Distributed interactive Simulation.	
	New Requirement as reported and approved in budget submitted 6/94 for Secure Net	153
	Management Center (L100)	

Will provide the equipment necessary to optimize secure network performance thru traffic analysis, provide network fault isolation, and will also provide fiber optic network

configuration management.

### DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

### Department of the Navy (\$ In 000)

2286	
R&D - Naval Undersea Warfare Center  a. Productivity Non-ADP Equipment/CASS RF Station (L065)  b. Cancellation	c. Congressional reduction to DBOF capital program.

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۲.	<ol> <li>R&amp;D - Naval Undersea Warfare Center</li> <li>a. Productivity ADP Equipment/Computer Aided Manufacturing &amp; Design (L072)</li> <li>b. Cancellation</li> <li>c. Congressional reduction to DBOF capital program.</li> </ol>	400
ထံ	R&D - Naval Undersea Warfare Center a. Productivity ADP Equipment/CASS Support Test Program Sets (L056) b. Cancellation	120

apital program.	ır CMS Processor Upgrade (L076)	apital program.
c. Congressional reduction to DBOF capital program.	R&D - Naval Undersea Warfare Center a. Replacement ADP Equipment/TD/CMS Processor Upgrade (L076) b. Cancellation	c. Congressional reduction to DBOF capital program.

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# FY 1995 DBOF Capital Program Reconcililation

Funding Disposition of Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
   b.) Disposition of project: cancellation, deferral and/or substitution
   c.) Disposition of related funding
  - - Disposition of related funding

### NAVAL UNDERSEA WARFARE CENTER FY 1995 DBOF CAPITAL PURCHASES FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### Department of the Navy (\$ in 000)

<del></del>	R&D - Naval Undersea Warfare Center  a. Environmental Non-ADP Equipment (Minor)  b. Tow Body Sled (L082) Substitution  Transducer and Hull Array Lab Upgrade (L086) Substitution  c. No change in funding disposition	712 500 212	
٥i	R&D - Navai Undersea Warfare Center a. Various Non-ADP/ADP Equipment (Minor) b. Standard Submarine Radio Room (L088) Substitution Submarine Sail Measurement Platform (L090) Substitution c. No change in funding disposition	863 465 398	
က်	R&D - Navai Undersea Warfare Center a. Productivity Non-ADP Equipment (Minor) b. Deep Depth Large Diameter Pressure Vessei (L091) Substitution Antenna Range Modernization (L097) Substitution ESM Test Bed (L102) Substitution c. No change in funding disposition	1936 1064 512 360	
4	R&D - Navai Undersea Warfare Center  a. Productivity ADP Equipment (Minor)  b. Submarine Image Transmission Laboratory (L089) Substitution  Central Archival System (L094) Substitution  Worldwide Portable Satellite Communications System (L103) Substitution  c. No change in funding disposition	590 200 160 230	

# NAVAL UNDERSEA WARFARE CENTER FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  R&D - Naval Undersea Warfare Center  a. New Mission Non-ADP Equipment (Minor)  b. Towed & Deployed Sensor Laboratory (L087) Substitution Multi-Weapon Real-time Recording (L105) Substitution Simulation Server Project (L104) Substitution IRIS Workstations (L099) Substitution c. No change in funding disposition	LATIONS, SUBSTITUTIONS			614	titution 155	tion 144	160	155	
. ທ່	FUNDING DISPOSITION OF DEFERRALS, CANCE	Department of the Nav (\$ in 000)	5. R&D - Naval Undersea Warfare Center	a. New Mission Non-ADP Equipment (Minor)	b. Towed & Deployed Sensor Laboratory (L087) Sub	Multi-Weapon Real-time Recording (L105) Substit	Simulation Server Project (L104) Substitution	IRIS Workstations (L099) Substitution	c. No change in funding disposition

	<ul> <li>a. Productivity ADP Equipment/High Performance Workstations (L021)</li> <li>b. Cancellation</li> <li>c. N/A. Obiigational authority and TOA removed by Congressional action.</li> </ul>
7.	7. R&D - Naval Undersea Warfare Center a. New Mission ADP Equipment/VAX 6000 (Ingrade /I 043)

R&D - Naval Undersea Warfare Center

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# FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### Department of the Navy (\$ in 000)

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Obligational authority and TOA removed by Congressional action.	aval Undersea Warfare Center
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8. R&D - Naval Undersea Warfare Center a. Replacement ADP Equipment (Minor)

Secure Intralab Communications Connection (L062) Substitution
 Secure Network Management Center (L100) Substitution

260 107 153

c. No change in funding disposition

## FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS FY 1995 DBOF CAPITAL PURCHASES

### Department of the Navy (\$ In 000)

R&D - Naval Undersea Warfare Center

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	a. Productivity Off-the-Shelf Software (Minor)  b. Cancellation	88
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		83
	c. N/A. Obligational authority and TOA removed by Congressional action.	
<del>=</del>	R&D - Naval Undersea Warfare Center a. New Mission Off-the-Sheff Software (Minor)	
	b. Cancellation	) )
	c. N/A. Obligational authority and TOA removed by Congressional action.	
42	R&D - Naval Undersea Warfare Center	
	a. Productivity Non-ADP Equipment/CASS RF Station (L065)	2286
	b. Carcellation	
	c. N/A. Obligational authority and TOA removed by Congressional action.	
<del>1</del> 3	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/Computer Alded Manufacturing & Design (L072)	400
	b. Cancellation	
	c. N/A. Obligational authority and TOA removed by Congressional action.	

# FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

### Department of the Navy (\$ In 000)

4.	14. R&D - Naval Undersea Warfare Center
	a. Productivity ADP Equipment/CASS Support Test Program Sets (L056)
	b. Cancellation
	c. N/A. Obligational authority and TOA removed by Congressional action.
Ť.	15 B&D - Nevel Undersos Wedere Center

b. Cancellation
 c. N/A. Obligational authority and TOA removed by Congressional action.

a. Replacement ADP Equipment/TD/CMS Processor Upgrade (L076)

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# FY 1995 DBOF Capital Program Reconcillation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories presented are as follows:

- a.) Category of purchase/project name, as noted in the FY 1995 President's Budget b.) Disposition of project: cancellation, deferral and/or substitution
- c.) Explanation for cancellation or deferral and substitution/disposition of related funding

## FY 1995 DBOF CAPITAL PURCHASES

DEFERRALS, CANCELLATIONS, SUBSTITUTIONS  Navy (NCCOSC)		A. CANCELLATIONS  1. R&D - Naval Command, Control and Ocean Surveillance Center  a. Non-ADPE and Telec. Equip./CASS Test Systems  b. Cancellation	The FY 1995 President's Budget included \$4,550K of FY 1995 authority for the tion of two CASS test stations. These acquisitions were based on identified ments at that time. The Congressional reduction to the DBOF capital program sent re-evaluation of workload resulted in the reduction of one station (\$2,27]	2. R&D - Naval Command, Control and Ocean Surveillance Center  a. ADP and Telec. Equip./Supercomputer System 1,553 b. Cancellation c. High Performance Computing equipment is developed in a highly competitive environment experiencing rapid turnover in technology. As a result, some of the items in the FY 1995 President's Budget have become obsolete and are no longer needed, especially given the limitations on the FY 1995 DBOF capital program due to Congressional reductions.	3. R&D - Naval Command, Control and Ocean Surveillance Center a. ADP and Telec. Equip./Network Backplane Upgrade b. Cancellation c. The FY 1995 President's Budget included \$200K for the purchase and installation of five independent fiber optic concentrator upgrades (network backplane upgrades) at a unit cost of \$40K each. The change in the CPP threshold removed these items from the program.	4. R&D - Naval Command, Control and Ocean Surveillance Center  a. ADP and Telec. Equip./ADA Software Development System  b. Cancellation  c. This item was to set up an educational software engineering lab. The project was cancelled because maintenance costs were determined to be significantly higher than the original planning estimate, making this project too costly to pursue at this time.
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Command, Control and Ocean Surveillance Center Development/Modification of Command Local Systems Development/Modification of Command Local Systems 145 195 Deresident's Budget included CPP authority for a software development roject planned for the NISE West Vallejo site. Due to the planned base allejo site (and relocation to NISE West San Diego), this project is no cornand, Control and Ocean Surveillance Center Command, Control and Ocean Surveillance Center Solution (ADP and Telec. Equip.) Substitution item was deferred due to the FY 1995 Congressional reduction to DBOF item was deferred due to the FY 1995 Congressional reduction to DBOF item was deferred due to the FY 1995 Congressional reduction to DBOF item Solution Control and Ocean Surveillance Center chec. Equip./INGRES Site Licenses in and (ADP and Telec. Equip.) Substitution Command, Control and Ocean Surveillance Center was re-titled as the Software License for Business System Maintenance cluded as part of item #13. This acquisition is for software licenses to note and re-engineering requirements on the Alpha class business systems ruighnal requirement was cancelled because the title changed and it was uniforment was cancelled. Funding was realigned to higher priority items Command, Control and Ocean Surveillance Center telec. Equip./Software CASE Tools ion and (ADP and Telec. Equip.) Substitution was cancelled due to the revised CPP threshold. Funding was realigned to
o. R&D - Naval Command, Control and Ocas. Software Development/Modification b. Cancellation  c. The FY 1995 President's Budget is anotification) project planned for the closure of the Vallejo site (and relocations to the Vallejo site (and relocations are effective.  C. The Vallejo site (and relocations and Ocas. Deferral and (ADP and Telec. Equip./Computer Systigher priority items (see section C).  R&D - Naval Command, Control and Ocas. ADP and Telec. Equip./INGRES Site b. Cancellation and (ADP and Telec. C. This item was re-titled as the Standing and is included as part of item support maintenance and re-engineering computer. The original requirement was issumed this requirement was cancelled.  R&D - Naval Command, Control and Ocas. ADP and Telec. Equip./Software C. This item was cancelled.  R&D - Naval Command, Control and Ocas. ADP and Telec. Equip./Software C. This item was cancelled due to to the control and (ADP and Telec. Equip./Software C. This item was cancelled due to to the control and Co
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SUBSTITUTIONS

R&D - Naval Command, Control and Ocean Surveillance Center a. ADP and Telec. Equip./Videoteleconferencing System

b. Substitution

Engineering East Coast Division (NISE East) from four geographically dispersed activities. business, the use of videoteleconferencing (VTC) provided an opportunity to effectively operate as one organization while minimizing travel costs. Accordingly, this item (a VTC system for large meetings) was substituted for others in the FY 1995 President's Budget. NISE East was created on 9 January 1994, less than one month before submission of the c. The 1993 base closure process directed the formation of the NCCOSC In-Service FY 1995 President's Budget. As NISE East explored ways to reduce the cost of doing

10. R&D - Naval Command, Control and Ocean Surveillance Center

a. ADP and Telec. Equip./Fiber Optics Local Area Network

Substitution

technologies in high speed, multi-megabit and gigabit networking, multimedia collaborative planning tools and distributed network management capabilities into Navy and Joint Service Combat, and Command and Control systems, is required for to support several major programs in FY 1995, including the Joint Interoperability Demonstration - 1995. The support o in FY 1995, including the Joint Interoperability Demonstration - 1995. The support required by these programs was not known at the time of the FY 1995 President's Budget.

11. R&D - Naval Command, Control and Ocean Surveillance Center

a. ADP and Telec. Equip./Data Warehouse This item, which will establish the capacity to integrate state-of-the-art

b. Substitution

warehousing as a mandatory capability to store and retrieve historical information. This requirement was emerging at the time of the FY 1995 President's submission and information about the technology was not available. c. The NCCOSC Corporate Information Management (CIM) Program is based on data

R&D - Naval Command, Control and Ocean Surveillance Center

a. ADP and Telec. Equip./Multi-User License for Employee Access Tools

b. Substitution

c. At the time the FY 1995 Budget submission was made, NCCOSC had just begun to assess a variety of new data access tools. These tools will be an important tool for employees requiring access to corporate data, and are required to reduce the reliance on labor intensive software development and maintenance efforts required by traditional systems

a. ADP and Telec. Equip./Automated Multi-Point Control Unit 13. R&D - Naval Command, Control and Ocean Surveillance Center b. Substitution

c. The 1993 base closure process directed the formation of the NCCOSC In-Service Engineering East Coast Division (NISE East) from four geographically dispersed activities. NISE East was created on 9 January 1994 less than one month before submission of the operate as one organization while also minimizing travel costs. Accordingly, this item business, the use of videoteleconferencing (VTC) provided an opportunity to effectively system to allow numerous small simultaneous VTC meetings) was substituted for others in FY 1995 President's Budget. As NISE East explored ways to reduce the cost of doing the FY 1995 President's Budget.

- 14. R&D Naval Command, Control and Ocean Surveillance Center a. ADP and Telec. Equip./Corporate Desktop Server b. Substitution
- c. Procurement of a Corporate Desktop Server in FY 1995 is critical in allowing NCCOSC corporate data (eliminating the need to maintain and reconcile multiple sources of data). to effectively manage its finances and operations. This server will provide personnel access to the corporate database, and is part of an overall NCCOSC move to centralized
- 15. R&D Naval Command, Control and Ocean Surveillance Center

a. ADP and Telec. Equip./High Power Extraction System b. Substitution

amplifiers, needed to support a wide variety of programs, was not previously available Equipment to perform rapid and accurate modeling of high power transistors and

a. ADP and Telec. Equip./Multi-User License for NFAS Views/Reports 16. R&D - Naval Command, Control and Ocean Surveillance Center

b. Substitution

labor intensive software development/maintenance efforts required by traditional systems. c. At the time of the FY 1995 President's Budget, NCCOSC had just begun to assess employees requiring access to corporate data, and are required to reduce the reliance variety of new data access tools. These tools will be an important capability for

R&D - Naval Command, Control and Ocean Surveillance Center a. ADP and Telec. Equip./Personal Computer Client Server Substitution

The PC Network Server requirement was revised after the original submission because NCCOSC to manage its finances and operations by providing managers, administrators, and of changes in technology. FY 1995 procurement of a PC Network Server is critical for employees with NCCOSC-wide availability to tools to access and update the corporate

18. R&D - Naval Command, Control and Ocean Surveillance Center

a. ADP and Telec. Equip./Access Control System, Warminster b. Substitution

to be provided by NAWC. Within the next year, NAWC Warminster is scheduled to close, with NCCOSC RDT&E Division (NRaD) as directed under base closure, security functions continued When part of the Naval Air Warfare Center (NAWC) Warminster, PA transferred to the President's Budget, it was not known that NRaD would become responsible for the site's NRaD remaining and assuming all host responsibilities. At the time of the 1995 security.

# FY 1995 DBOF Capital Program Reconcililation

Deferrals, Cancellations, Substitutions FY 1995 DBOF Capital Purchases

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### Funding Disposition of Deferrals, Cancellations, Substitutions , ital Purchases FY 1995 DBOF.

### Navy (\$ in 000)

### 1 Naval Research Laboratory

. ADPE/Oceanographic Data Visualization, Display and Analysis	\$189,000
c Data Analysis Network	\$200,000
Graphics Challenge/2 Super-Mini COmputer	\$300,000
pacity, High Performance Memory System	\$625,000
ADPE/Secure Supercomputer	\$150,000
Server/Archiver Connection to Cray Y-MP-EI	\$126,000
Processing Sub-System	\$150,000
torage Sub-System	\$1,859,000

cancellation

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 cancellation

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cancellation

7. cancellation

8. cancellation

c. Congressional reduction to DBOF capital program.

FY 1995 DBOF vital Purchases Deferrals, Cancellations, Substitutions FY 1995 DBOF

Navy (\$ in 000)

Research and Development-Naval Research Lab
 Non-ADP/Distributed Weapons Assessment Simulation

\$2,500

b. Cancellationc. Restructuring of CPP priorities based on current R&D efforts.

# FY 1995 DBOF Capital Program Reconcilliation

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    - Disposition of related funding

### FY 1995 DBOF Capital Purc....es Funding Disposition of Deferrals, Cancellations, Substitutions

### Navy (\$ in 000)

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	Display and Analysis	
	Visualization,	
	Data	
	<ol> <li>ADPE/Oceanographic Data Visualization,</li> </ol>	System
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•	Capacity,
	ADPE/High
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6. ADPE/File Server/Archiver Connection to Cray Y-MP-El	7. ADPE/Parallel Processing Sub-System
ø.	7

\$625,000 \$150,000 \$126,000 \$150,000

\$1,859,000

\$119,000 \$200,000

\$300,000

\$189,000

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- c. N/A-Obligational authority and TOA removed by Congressional action.

### Navy (\$ in 000)

1 Naval Research Laboratory	
a. Non-ADP/Distributed weapons Assessment Simulation	\$2,500
b. Cancellation	
c. Redirected to the following Non-ADPE items:	
1. 400k V TEM and Environmental Cell	\$1.211
2. Infrared Compact Range Facility	\$1,140
3. High Resolution X-ray Diffractometer	\$280
	\$2,631

### DEFENSE BUSINESS OPERATIONS FUND - NAVY INFORMATION SERVICES FEBRUARY 1995

Department of Navy Information Service activities provide regional Base Level Computing (BLC) and automated information services (AIS) and manage certain remote facilities. These activities design, develop and maintain standard Navy automated information systems and provide automated data processing support. Naval Computer and Telecommunication Stations (NAVCOMTELSTAS) are multiprocessing and multiprogramming time sharing service centers which provide information service support to Navy customers. The Fleet Material Support Office (FMSO) is a Central Design Agent providing maintenance and development of AIS for its customers, primarily the Naval Supply Command, as well as other Navy, Defense agency and non-federal activities.

### Activity composition:

NAVCOMTELSTA Washington
NAVCOMTELSTA Pensacola
NCTAMS LANT Norfolk
NAVCOMTELSTA San Diego
NAVCOMTELDET San Francisco
NAVCOMTELSTA Jacksonville
NAVCOMTELSTA New Orleans
NCTAMS EASTPAC
NAVCOMTELSTA Newport
Fleet Material Support Office

Washington, DC
Pensacola, FL
Norfolk, VA
San Diego, CA
San Francisco, CA
Jacksonville, FL
New Orleans, LA
Pearl Harbor, HI
Newport, RI
Mechanicsburg, PA

### Cost of Goods Sold:

 FY 1994
 FY 1995
 FY 1996
 FY 1997

 430.7
 206.6
 208.5
 207.5

In FY 1995 the Cost of Goods Sold declined by half from the previous year as the data processing installation portion of the NAVCOMTELSTAS transferred to the Defense Information Systems Agency in FY 1994. In FY 1996 and FY 1997 costs for the business activity remain relatively constant.

### Revenue:

FY 1994	FY 1995	FY 1996	<u>FY 1997</u>
443.4	206.5	202.0	206.8

Revenue decreases in FY 1995 due to the transfer noted above. In FY 1996 there is a slight decrease, reflecting a negative recoupment. FY 1997 increases with inflation.

### Net/Accumulated Operating Result:

NOR in FY 1994 is a positive \$14.4 million, while AOR in that year is \$19.5 million. This result is better than that budgeted. NOR in FY 1995 is -\$13.8 million and incorporates transfers to DISA of \$14.7 million. AOR is \$5.7 million. NOR for FY 1996 is -\$5.7 million, resulting in a zero AOR. NOR and AOR are zero for FY 1997.

### Unit Cost and Customer Revenue Rate:

	FY 1994	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Unit Cost:				
Direct Labor	49.08	45.07	46.07	49.36
CPU Time	58.47	48.10	46.98	
Support Service	s 33.39	31.58	29.23	

This business area employs a number of cost measures, including cost per hour for programmers, cost per specific service accomplished and straight costs for certain reimbursable services and umbrella contracts managed by the activity. The cost per unit drops in FY 1995, reflecting the transfer of DPI services to DISA, then remains relatively constant in FY 1996. In FY 1997 the remaining DPI site in this business activity is realigned to DISA. This obviates the need for the last two measures shown above.

The composite customer revenue rates in FY 1995 decrease by 5.4 percent for NCTC and increase 9.4 percent for FMSO. In FY 1996 the respective rates increase .5 and .1 percent, reflecting a negative recoupment in that year. The rate increases with inflation in FY 1997, 4.2 percent for NCTC and 7.2 percent for FMSO.

### Economies and Efficiencies:

This business area has assumed efficiencies of \$1.1 million in FY 1995 and a further \$1.0 million in FY 1996 as part of a Navy-wide initiative to reduce costs at DBOF activities.

### End strength and Workyears:

	FY 1994	FY 1995	FY 1996	FY 1997
End Strength Civilian	2,464	2,248	2,233	2,231
Military Workyears	169	135	103	103
Civilian	3,507	2,235	2,216	2,214
Military	125	130	99	99

### Capital Budget Authority:

FY 1994	FY 1995	FY 1996	FY 1997
2,141	1,346	1,250	1,150

### DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY INFORMATION SERVICES REVENUE AND EXPENSES (Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:	. •			•
Gross Sales	443.4	206.5	202.0	206.8
Operations	433.9	204.7	200.1	204.8
Capital Surcharge	0.0	0.0	0.0	0.0
Depreciation except Maj Const	9.4	1.9	1.9	2.0
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	443.4	206.5	202.0	206.8
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	4.9	2.7	2.6	2.6
Salaries and Wages:	0.0	0.0	0.0	0.0
Military Personnel	7.1	11.9	5.1	5.2
Civilian Personnel	158.3	122.1	124.0	127.3
Materials, Supplies and	0.0	0.0	0.0	0.0
Parts used in Operations	76.3	17.6	19.1	18.0
Facility Repair Charge	0.7	0.6	0.6	0.5
Depreciation - Capital	9.4	1.9	1.9	2.0
Contracted Engineering Services	4.5	3.6	3.9	3.0
Lease Costs	8.4	1.5	1.3	1.2
Purchased Utilities	9.8	2.1	4.3	4.4
Purchased Communications	6.7	0.6	0.6	0.7
Equipment Maintenance	10.1	3.5	3.6	3.1
Fuel	0.0	0.0	0.0	0.0
Other Expenses	132.7	37.6	40.6	38.8
Total Expenses	429.0	205.6	207.7	206.8
Operating Result	14.4	0.9	(5.7)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	0.0	(14.7)	0.0	0.0
Net Operating Result	14.4	(13.8)	(5.7)	0.0
Prior Year AOR	5.1	19.5	5.7	(0.0)
Accumulated Operating Result	19.5	5.7	(0.0)	(0.0)

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY INFORMATION SERVICES SOURCE OF REVENUE (Dollars in Millions)

1. New Orders	FY 1994 500.0	FY 1995 206.4	FY 1996 175.3	FY 1997 203.3
a. Orders from DoD Components	227.9	115.0	87.8	114.4
Department of the Navy	181.1	91.1	64.9	92.1
Operations and Maintenance, Navy	129.2	70.4	44.7	71.1
Operations and Maintenance, Marine Corps	4.2	2.2	2.2	2.2
O&M, Navy Reserve	5.2	4.5	4.5	4.5
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	0.8	0.0	0.0	0.0
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	0.9	1.1	0.9	1.5
Other Procurement, Navy	34.9	11.7	11.7	11.7
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.8	0.6	0.6	0.6
Military Construction, Navy	0.0	0.0	0.0	0.1
Other Navy Appropriations Other Marine Corps Appropriations	5.0 0.0	0.5 0.0	0.4 0.0	0.5 0.0
Department of the Army	14.1	5.9	5.3	5.3
Army Operation & Maintenance Accounts	8.8	5.9	5.3	5.3
Army Res, Dev, Test & Eval Accounts	0.0 4.7	0.0 0.0	0.0 0.0	0.0 0.0
Army Procurement Accounts Army Other	0.7	0.0	0.0	0.0
Department of the Air Force	7.7	2.7	2.8	2.4
Air Force Operation & Maintenance Accounts	5.9	2.7	2.8	2.4
Air Force Res, Dev, Test & Eval Accounts Air Force Procurement Accounts	0.0 1.8	0.0 0.0	0.0 0.0	0.0 0.0
Air Force Other	0.0	0.0	0.0	0.0
DoD Appropriated Accounts	24.9 0.0	15.4 0.0	14.7 0.0	14.5 0.0
Base Closure and Realignment Operation & Maintenance Accounts	22.3	15.4	14.5	14.3
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.0	0.0	0.0	0.0
DoD Other	2.6	0.0	0.2	0.2
b. Orders from DBOF Business Areas	252.0	80.8	75.7	76.4
c. Total DoD	479.9	195.8	163.5	190.8
d. Other Orders	20.1	10.6	11.8	12.6
Other Federal Agencies	12.6	4.4	5.4	5.6
Trust Funds (including FMS)	7.5	5.1	5.1	5.5
Non Federal Agencies	0.0	1.1	1.4	1.6
2. Carry-In Orders	134.6	191.2	191.1	164.5
3. Total Gross Orders (available funding)	634.6	397.7	366.5	367.8
4. Carry-Out Orders	191.2	191.1	164.5	161.0
Change in Backlog (carry-out less carry-in)	56.7	(0.1)	(26.7)	(3.5)
5. Total Gross Sales	443.4	206.5	202.0	206.8

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
INFORMATION SERVICES

### NFORMATION SERVICES February 1995 (\$ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	7,098	200	4,601	11,899	128	(6,914)	5,113	264	(155)	5,222
Civilian Personnel Compensation	158,340	2,733	(38,983)	122,090	2,668	(194)	123,964	3,428	(114)	127,278
Travel	4,248	34	(1,717)	2,565	25	(159)	2,431	23	(61)	2,357
Material & Supplies - Commercial	70,503	1,974	(55,900)	16,577	497	599	17,673	530	(1,546)	16,657
Material & Supplies - from DBOF	7,498	951	(6,430)	2,019	(278)	398	2,139	188	(372)	1,955
Other Intrafund (DBOF) Purchases	42,554	612	(29,346)	13,820	(868)	1,338	14,260	(136)	536	14,660
Transportation	265	7	(75)	197	10	(£)	200	9	(3)	203
Capital Investment Depreciation	9,409	0	(7,528)	1,881	0	65	1,946	0	<i>L</i> 9	2,013
Other Purchases	130,794	3,663	(98,892)	35,565	1,067	4,115	40,747	1,222	(4,843)	37,126
Total Operating Budget * *Includes Reimbursements	430,709	10,174	(234,270)	206,613	3,219	(1,359)	208,473	5,525	(6,527)	207,471

### Changes in the Cost of Operations INFORMATION SERVICES FEBRUARY 1995 \$ in Millions

		Expenses 430.7
1. FY 1994 Actual		430.7
2. FY 1995 Estimate in President's Budget		232.2
3. DON Productivity Initiative		-1.1
4. Pricing Adjustments		0.9
a. FY 1995 pay adjustment	0.9	0.12
5. Program Changes		-27.9
a. Decrease in FMSO budget to match anticipated workload	-17.6	
b. Decrease in NCTS workload	-9.7	
c. Transfer of NAVDAF Lemoore out of DBOF to PACFLT	-0.6	
6. Other Changes		2.5
a. Additional purchases from Public Works Centers & DFAS	2.5	
G 774 1005 G		206.6
7. FY 1995 Current Estimate		206.6
8. Pricing Adjustments		3.2
a. Annualization of prior year pay raise	0.6	
b. FY 1996 pay raise	2.2	
c. Materials & Supplies - DBOF	-0.3	
d. Materials & Supplies - Commercial	0.5	
e. Industrial Purchases	-0.9 1.1	
f. Other purchases	1,1	
9. DON Productivity Initiative		-1.0
10. Program Changes		-4.1
a. Reduction of 138 military workyears at NCTSs	-6.8	
b. Increase in workload at NCTS Jacksonville	3.4	
c. Reduction at FMSO for UADPS-SP workload	-0.7	
11. Other Changes		3.8
a. Additional cost for rent and utilities & services from DFAS	3.7	
b. Depreciation	0.1	
40 TH 4000 TH		200 5
12. FY 1996 Estimate		208.5
13. Pricing Adjustments		5.5
a. Annualization of prior year pay raise	0.8	
b. FY 1997 pay raise	2.9	
c. Materials & Supplies - DBOF	0.2	
d. Materials & Supplies - Commercial	0.5	
e. Industrial Purchases	-0.1 1.2	
f. Other purchases	1.2	
14. Program Changes		-6.6
a. Capitalization of DPI to DISA	-6.6	
15 Other Changes		0.1
15. Other Changes Depreciation	0.1	0.1
Depreciation	V.1	
16. FY 1997 Estimate		207.5

BUSINESS AREA CAPITAL BUDGET SUMMARY Department of the Navy Information Services (\$ in Millions)

FY 1996 FY 1997	Total Total Cost Quant	0.256 0.256 0	0.5 0.9	0.4 0.35 0.4 0.35	0.19 0.19 0	1.346 1.25
FY 1994 FY 1995	Total Cost Quant	0.7 0.55 1.25	0.271 0.04 0.311	0.53 0.53	0.05 0.05	2.141
4	Item Description Quant	2a. ADP Equipment and Telecommunications (>\$100,000) Replacement New Mission Subtotal ADP Equipment (>\$100,000)	2b. ADP Equipment and Telecommunications (>\$50,000<\$100,000) Replacement New Mission Subtotal ADP Equipment (>\$50,000<\$100,000)	3. Software Development (>\$50,000)  New Mission Subtotal Software Development (>\$50,000)	4. Minor Construction (>\$50,000<\$300,000) Replacement Subtotal Minor Construction (>\$50,000<\$300,000)	Grand Total Capital Purchase Program

BU	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Millions)	A CAPITAL PURCH	. PURCHASES Millions)	S JUSTIF	ICATIO	z					A. Budget Submission FY 1996/1997 PRESIDE	A. Budget Submission FY 1996/1997 PRESIDENT'S	n ENT'S
B. Component/Business Area/Date  C. I	es (CDA)/		C. Line	ine No. & Item Descr Miscellaneous Equip	Item Descr	Line No. & Item Description Miscellaneous Equip	u u	 	! ! ! ! ! ! !	}  1  1  1  1  1  1  1  1  1  1  1  1  1	D. Activity Identification	ty Identif	ication
FY 1994	: : :	FY 1994	4			FY 1995	35	· · · · · · · · · · · · · · · · · · ·	FY 1996	1 1 3 1 1 1 8 8 1	 	FY 1997	
Element of Cost   Quantity   Unit Cost   Tota	Quantity	Unit Cos	t Total C	3st   Quan	tity	Unit Cos	t Total Co.	st   Quantity	Unit Cost	Quantity   Unit Cost Total Cost Quantity   Unit Cost Total Cost Quantity   Unit Cost Total Cost Total Cost   Cost Total Cost Total Cost   Cost Total Cost To	Quantity	Unit Cost	Total Cc
END ITEM	<b>_</b>									0.400			0.350
									. <del></del>		. — <u>—</u>		<u>_</u>

Narrative Justification

Equipment such as document scanners, printers, plotters, projection equipment etc. are required to meet mission requirements at various activities.

BUSINESS AREA CAPITAL PUR	JSINESS ARE	A CAPITAL PURCHAS (\$ in Millions)	PURCHASES (11ions)	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Millions)	NO	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 4 6 6 8	1 1 1 1 1 1 1 1		A. Budget Submission FY 1996/1997 PRESIDENT'S	Submissic 997 PRESIU	on Sent's
B. Component/Business Area/Date NAVCOMTELSTAs/Information Services (CDA)/	ses (CDA)/		C. Line N	C. Line No. & Item Description 004 Miscellaneous Software	escription ftware		1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1		D. Activity Identification	Activity Identif	cation
		FY 1994			FY 1995	! !	t t t t t t t t t t t t t t t t t t t	FY 1996			FY 1997	
Element of Cost   Quantity   Unit Cost   Total Cost	Quantity	Unit Cost	Total Cos	t Quantity	Unit Cost	Quantity   Unit Cost   Total Cost   Quantity   Unit Cost   Total Cost   Quantity   Unit Cost   Total Cost   T	Cost Quantity	Unit Cost	Total Cost	Cost Quantity   Unit Cost   T	Unit Cost	Total Cost
  END ITEM								·	0.350			0.300
					·						. ·	
		; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1111111111						

Narrative Justification

Software to support The Software Process Improvement project is required to improve the processes utilized in the development and maintenance of application software. The Software Process Improvement initiative will improve processes to be in compliance with the Software Engineering Institute's (SEI) Capability Maturity Model (CMM). The software will increase productivity, decrease costs, and increase quality work products.

					FY 96/97	FY 96/97 PRESIDENT'S
COMPONENT/BUSINESS AREA/DATE NAVY/INFORMATION SYSTEMS/	<i>COMPONENT/BUSINESS AREA/DATE</i> NAVY/INFORMATION SYSTEMS/JANUARY 1995	<i>I</i>	II ITEM DESCRIPTION FMSO HARDW	<i>M DESCRIPTION</i> FMSO HARDWARE		
ELEMENTS OF COST			FY 1996   UNIT  QTY   COST 		FY 1997   UNIT   COST     	  TOTAL    COST   
11 FMSO (Equipment)			0	500		- 500

Narrative Justification

EMSQ. Funds provide support to the Navy Fleet Material Support Office's (FMSO) Local Area Network (LAN) Plan. As part of the plan, FMSO is upgrading currently exist in FMSO which prevents deployment of the development tools needed to maintain its competitiveness. Upgrading and standardizing hardware its LAN which will replace obsolete ADP equipment in order to provide an environment for client/server development. A variety of PC hardware platforms infrastructure will allow FMSO to use the LAN to deploy the latest software products.

## FY 1995 CAPITAL PROGRAM RECONCILIATION

**BUSINESS AREA: INFORMATION SYSTEMS** 

There are two significant changes since the FY 1995 President's Budget:

- Substitution: A \$190,000 minor construction project has been substituted for a portion of the Miscellaneous Equipment in order to replace steel fuel tanks with fiberglass at the Pensacola site to meet environmental compliance regulations.  $\in$
- New Project: A \$500,000 Local Area Network upgrade has been added to the capital program. field site had no capital program for FY 1995 included in the President's Budget. Funding was provided via realignment from other business areas within Department of the Navy. provide for client/server development and the standardization of software usage. This the upgrade is at the Fleet Material Support Office in Philadelphia and is required to ପ

### DEPARTMENT OF THE NAVY DEFENSE PRINTING SERVICE NARRATIVE SUMMARY

BUSINESS AREA DESCRIPTION: The Defense Printing Service (DPS) is responsible for the Department of Defense (DOD) printing program and document automation encompassing value-added conversion, electronic storage, and output and distribution of hardcopy and digital information. DPS is the single manager for all DOD printing and duplicating whether produced in-house or produced through the Government Printing Office (GPO). The Joint Committee on Printing (JCP), Congress of the United States, exercises oversight of all federal printing including the DPS inhouse printing capability. All DOD printing requirements are forwarded to DPS to assure compliance with DOD Directives and with the Federal Printing Program.

DPS manages a worldwide printing, duplicating, and document automation production and procurement network. At the end of FY 1994 it was comprised of a headquarters element located on the Washington Navy Yard, 82 major field locations and 177 smaller reprographics facilities. Approximately 2,400 civilian personnel currently support the DPS mission in a variety of disciplines.

**OUTPUTS:** Besides traditional offset printing and duplicating production, DPS provides electronic scanning, storage, output and distribution, reproduction, micrographics, automated publishing, copier management, and contract printing.

CUSTOMERS: DPS's primary customers are Army (39%), Navy (32%), Air Force (17%), and other Defense agencies (12%).

SIGNIFICANT CHANGES: DPS completed a core capacity analysis which concluded that only classified data, customer sensitive documents, networked digital information conversion, storage, output and distribution, and military specific program management functions should remain within DPS. To reach this core capacity, a significant rightsizing effort is underway with a corresponding increase in the outsourcing of traditional printing and duplicating. In addition, the remaining core operations are being automated to achieve electronic input, storage, output, and distribution. Finally, DPS is a reinvention laboratory under the auspices of the Defense Performance Review.

BUDGET ANALYSIS: DPS has Net Operating Result (NOR) objectives of \$45.3 million in FY 1995, -\$8.2 million in FY 1996, and \$0 (breakeven) in FY 1997. The FY 1995 composite rate increased 16% over FY 1994, the majority of which is required to finance Voluntary Early Retirement Authority/Separation Incentive Program costs in the business area (vice mission funded), finance base operating support costs via rates vice partial direct funds, accommodate normal escalation, and recover prior year operating losses. DPS uses multiple subsidiary rates to bill the customers

for products and services rendered.

In-house workload in the offset press and reproduction areas will decrease through additional outsourcing and conversion of paper products to digital, while electronic impressions, automated publishing and outsourcing should trend upward for the next several years. The workload trend in micrographics and other production is expected to remain relatively flat. Manpower will decrease significantly through the budget years as DPS rightsizes to its core capacity of approximately 1,700 civilians at approximately 220 locations by FY 1997. Specifically, personnel end strength decreased from approximately 2,700 to under 2,400 by the end of FY 1994. Budgeted end strength is 2,194, 1,994, and 1,695 for FY 1995, FY 1996, and FY 1997, respectively.

PRODUCTIVITY INITIATIVES/COST REDUCTIONS: This submission reflects consolidated DoD operations in each fiscal year, and incorporates anticipated productivity improvements, costs savings from capital investments, consolidation actions and infrastructure reductions. These initiatives have increased production labor efficiency from 98.0% in FY 1993 to 102.1% in FY 1994 with a current plan to increase it to 108.0% by FY 1997. Since inception on 6 April 1992, DPS has eliminated over 1,400 personnel billets, closed over 80 facilities, vacated 350,000 square feet of space, eliminated over 2,800 pieces of production equipment, and increased outsourcing by 15% of total sales. By the end of FY 1997, DPS plans to reduce personnel by another 700 and close an additional 44 facilities.

UNIT COSTS: DPS has participated with the Office of the Secretary of Defense Unit Cost Working Group to develop comprehensive and relevant unit cost measures. Beginning in FY 1995 DPS will use three measurable outputs and five unmeasurable outputs to track unit costs. The measurable outputs consist of offset printing units, electronic impressions and running feet of reproduction. Unmeasurable outputs will be tracked in total dollars and consist of micrographics, automated publishing, other production, copier program, and contract printing. DPS restructured its pricing manual to simplify the process of computing the unit cost measures and is developing an automated monthly unit cost report from the automated accounting system.

### DEPARTMENT OF THE NAVY DEFENSE PRINTING SERVICE REVENUE AND EXPENSES

	FY 1994	FY 1995	FY 1996	<u>FY 1997</u>
Revenue:				
Gross Sales	397.8	457.3	402.4	411.7
Operations	391.4	450.1	393.6	402.1
Capital Surcharge	0.0	•		
Depreciation except Maj Const	6.2	7.2	8.8	9.6
Major Construction Depreciation	0.2	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	397.8	457.3	402.4	411.7
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	1.9	1.2	1.2	1.4
Salaries and Wages:				
Military Personnel	0.0	0.0	0.0	0.0
Civilian Personnel	106.0	88.9	84.5	76.7
Materials, Supplies and				
Parts used in Operations	34.9	32.4	31.7	32.7
Facility Repair Charge	0.7	0.8	0.7	0.7
Depreciation - Capital	6.3	7.2	8.8	9.6
Contracted Engineering Services	0.0	0.0	0.0	0.0
Lease Costs	43.5	43.0	40.0	41.3
Purchased Utilities	3.6	3.7	3.6	3.7
Purchased Communications	1.2	1.2	1.2	1.2
Equipment Maintenance	29.7	27.5	26.3	27.1
Fuel	0.0	0.0	0.0	0.0
Other Expenses	185.2	206.1	212.6	217.3
Total Expenses	413.0	412.0	410.6	411.7
Operating Result	(15.2)	45.3	(8.2)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	7.2	0.0	0.0	0.0
Net Operating Result	(8.0)	45.3	(8.2)	0.0
Prior Year AOR	(29.1)	(37.1)	8.2	0.0
Accumulated Operating Result	(37.1)	8.2	(0.0)	0.0

# DEPARTMENT OF THE NAVY DEFENSE PRINTING SERVICE SOURCE OF REVENUE

1. New Orders	FY 1994 376.7	FY 1995 464.9	FY 1996 397.1	FY 1997 412.7
a. Orders from DoD Components	266.2	331.8	283.7	294.8
Department of the Navy	92.6	106.4	92.7	96.6
Operations and Maintenance, Navy	63.6	69.7	61.7	64.0
Operations and Maintenance, Marine Corps	10.5	14.2	12.0	12.6
O&M, Navy Reserve	3.0	3.7	3.1	3.3
O&M, Marine Corps Reserve	0.9	1.0	0.9	0.9
Aircraft Procurement, Navy	3.5	3.9	3.3	3.5
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	2.7	2.4	2.1	2.2
Other Procurement, Navy	0.3	0.7	0.6	0.6
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.7	1.0	0.8	0.9
Military Construction, Navy	0.3	0.3	0.2	0.2
Other Navy Appropriations	7.1	9.4	7.9	8.3
Other Marine Corps Appropriations	0.0	0.1	0.1	0.1
Department of the Army	97.4	128.7	109.1	113.3
Army Operation & Maintenance Accounts	82.2	109.1	92.6	96.1
Army Res, Dev, Test & Eval Accounts	4.3	5.6	4.7	4.9
Army Procurement Accounts	0.4	0.3	0.2	0.2
Army Other	10.5	13.7	11.6	12.1
Department of the Air Force	43.8	57.0	48.4	50.2
Air Force Operation & Maintenance Accounts	35.2	45.9	39.1	40.5
Air Force Res, Dev, Test & Eval Accounts	2.4	3.3	2.8	2.9
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	6.2	7.8	6.5	6.8
DoD Appropriated Accounts	32.4	39.7	33.5	34.7
Base Closure and Realignment	0.0	0.0	0.0	0.0
Operation & Maintenance Accounts	15.1	22.8	19.2	19.8
Res, Dev, Test & Eval Accounts	0.2	0.1	0.1	0.1
Procurement Accounts	0.3	0.1	0.1	0.1
DoD Other	16.8	16.7	14.1	14.7
b. Orders from DBOF Business Areas	87.4	107.5	91.6	95.3
c. Total DoD	353.6	439.3	375.3	390.1
d. Other Orders	23.1	25.6	21.8	22.6
Other Federal Agencies	21.6	23.7	19.9	20.9
Trust Funds (including FMS)	0.0	0.0	0.0	0.0
Non Federal Agencies	1.5	1.9	1.9	1.7
2. Carry-In Orders	48.4	27.3	34.9	29.6
3. Total Gross Orders (available funding)	425.1	492.2	432.0	442.3
4. Carry-Out Orders	27.3	34.9	29.6	30.7
Change in Backlog (carry-out less carry-in)	(21.1)	7.6	(5.3)	1.1
5. Total Gross Sales	397.8	457.3	402.4	411.6

Department of the Navy

Defense Printing Service
Summary of Price, Program and Other Changes (Operating Budget)
(Dollars in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FX 1997
Military Personnel Compensation	(10)	0	10	0	0	0	0	0	0	0
Civilian Personnel Compensation	106,045	1,685	(18,815)	88,915	2,009	(6,454)	84,470	1,961	(9,743)	76,688
Travel	618	6	(187)	440	7	(3)	44	7	0	451
Material & Supplies - Commercial	21,894	613	(2,511)	19,996	009	(686)	19,607	588	218	20,413
Material & Supplies - from DBOF	12,981	167	(1,361)	12,387	(212)	(51)	12,124	534	(436)	12,222
Other Intrafund (DBOF) Purchases	286	43	386	715	(66)	77	693	36	(14)	715
Transportation	1,285	36	(486)	835	42	(49)	828	25	. 0	853
Capital Investment Depreciation	6,249	0	915	7,164	0	1,665	8,829	0	765	9,594
Other Purchases	263,618	7,381	10,596	281,595	8,448	(6,438)	283,605	8,508	(1,385)	290,728
<b>Total Operating Budget</b>	412,966	10,534	(11,453)	412,047	10,795	(12,242)	410,600	11,659	(10,595)	411,664

# DEPARTMENT OF THE NAVY DEFENSE PRINTING SERVICE CHANGES IN COST OF OPERATIONS

	Costs
FY 1994 Current Estimate	\$413.0
FY 1995 Estimate in President's Budget	\$319.4
Estimated Impact in FY 1995 of FY 1994 Experience: a. Workload increases	93.8
Productivity Initiatives and Other Efficiencies: a. SECNAV Overhead Efficiencies	(1.2)
FY 1995 Current Estimate	\$412.0
Pricing Adjustments: a. Annualization of FY 1995 Pay Raise b. FY 1996 Pay Raise	0.7
Civilian Personnel Military Personnel c. DBOF Price Changes d. General Purchase Inflation	1.3 0.0 (0.5) 9.4
Productivity Initiatives and Other Efficiencies: a. SECNAV Overhead Efficiencies b. Core Capacity Downsizing	(1.2) (6.6)
Program Changes: a. Offset Production/Reproduction	(6.1)
Other Changes: a. Depreciation	1.6
FY 1996 Estimate	\$410.6
Pricing Adjustments: a. Annualization of FY 1996 Pay Raise b. FY 1997 Pay Raise	0.6
Civilian Personnel Military Personnel	1.4 0.0
<ul><li>c. DBOF Price Changes</li><li>d. General Purchase Inflation</li><li>e. Other Price Changes</li></ul>	0.3 9.4 0.0

FY 1997 Estimate	\$411.7
Other Changes	(0.1)
Program Changes: a. Offset Production/Reproduction	(4.9)
a. Core Capacity Downsizing	(5.6)

DEPARTMENT OF THE NAVY DEFENSE PRINTING SERVICE CAPITAL BUDGET SUMMARY (DOLLARS IN MILLIONS)

	ltem Description	<u>F</u>	FY 1994	F	FY 1995	FY	FY 1996	FY	FY 1997
		Quantity	Quantity Total Cost	Quantity	Quantity Total Cost	Quantity	Total Cost	Quantity	Total Cost
Non Automated Data Processing Equipment (>\$50,000<\$500,000)	quipment					···			
Production Equipment (Productivity)	(A)		\$11.1		\$7.1		\$14.4		\$6.4
Subtotal Non Automated Data Processing Equipment (>\$50,000<\$500,000)	ocessing Equipment		\$11.1		\$7.1		\$14.4		\$6.4
Minor Construction (>\$50,000<\$100,000) Minor Construction	(000		\$0.5		\$0.6		\$0.6		\$0.6
Subtotal Minor Construction (>\$50,	,000<\$100,000)	, i	\$0.5		\$0.6		\$0.6		\$0.6
Grand Total Capital Purchases Program	Program		\$11.6		27.7		\$15.0		\$7.0

# CAPITAL PURCHASES JUSTIFICATION DEFENSE PRINTING SERVICE (DOLLARS IN MILLIONS)

	FY	FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENT OF COST	Quantity Unit Cost Total Cost Quantity Unit Cost Total Cost Quantity Unit Cost Total Cost Quantity Unit Cost Total Cost	t Cost	otal Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Production Equipment (Productivity)							VAR		\$14.4	\$14.4 VAR		\$6.4
TOTAL									\$14.4			\$6.4

state-of-the-art service to DPS components. High-speed and ultra high-speed duplicators, production publishers, print on demand systems and electronic printing systems will be technological improvements and labor saving capabilities. The above equipment cost is \$6.4M in both FY 1996 and FY 1997. In FY 1995, the Navy's Capital Purchase Program authority was increased by \$2.0 M and in FY 1996 by \$8M dollars for expansion of Print On Demand publishing systems per FY 1995 Congressional action. Much of FY 1995 will be devoted to site visits and evaluation. The requirement definition, system description development, and purchase of equipment is estimated at \$2.0M, during the fourth Narrative Justification: This request represents production equipment required to replace worn out or obsolete equipment currently in use in Defense Printing Service (DPS) components and implements Print On Demand initiatives. Replacement production equipment was selected to increase operational productivity and efficiency and provide purchased with these Capital Purchase Program funds. The new equipment will specifically provide increased production speeds and improved printer resolutions; on-line/ automated production of multiple traditional printing processes; electronic storage of data; reproduction from multiple sources ( paper, floppy disk, network, modern); other quarter of FY 1995. The remaining sites will have their equipment installed during FY 1996, at a total cost of \$8.0 million.

900

# CAPITAL PURCHASES JUSTA ZATION DEFENSE PRINTING SERVICE (DOLLARS IN MILLIONS)

FY 1995	Cost Quantity Unit Cost Total Cost Quantity Unit Cost Total Cost Quantity Unit Cost Total Cost	VAR	
FY 1994	Unit Cost Total Cost Quar		
FY 1994	Quantity Unit Cost Total		TOTAL

up to standard. Additionally, site alterations are required to accommodate mission changes, space requirements, and quality of life issues at specific DPS facilities. Projects include moving printing plants and duplicating facilities to new locations, reconfiguring plant and office layouts, providing increased security, improving heating/ventilation/cooling through Defense Management Report Decision (DMRD) 998 required upgraded safety standards. Therefore, minor construction projects are requested to bring these facilities Narrative Justification: This represents numerous minor construction projects at the various Defense Printing Service (DPS) facilities/sites. Many of these sites acquired and other projects that improve efficiency/productivity.

0032

# FY 1995 CAPITAL PROGRAM RECONCILIATION

# BUSINESS AREA: DEFENSE PRINTING SERVICE

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.

## DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

SECONDARY BUSINESS AREA FUNCTION: The Naval Facilities Engineering Command's Public Works Centers (PWCs) provide utilities services, facilities maintenance, family housing services, transportation support, engineering services and shore facilities planning support required by operating forces and other activities.

Our mission is to provide our customers with the BEST public works service to meet their diverse needs.

### BUSINESS AREA COMPOSITION:

### ACTIVITY

### LOCATION

PWC Great Lakes
PWC Guam
PWC Jacksonville
PWC Norfolk
PWC Pearl Harbor
PWC Pensacola
PWC San Diego
PWC San Francisco Bay
PWC Washington
PWC Yokosuka

Great Lakes, Illinois
Agana, Guam, Marianas Islands
Jacksonville, Florida
Norfolk, Virginia
Pearl Harbor, Hawaii
Pensacola, Florida
San Diego, California
Oakland, California
Washington, DC
Yokosuka, Japan

### BUDGET HIGHLIGHTS:

### **BUSINESS PLAN:**

This document is being presented as a Public Works Center Corporate Business Plan. It recognizes the changes confronting us, and reaffirms our dedication to providing continuous high quality services to each customer.

Although we are participating in several studies with our customer base for additional PWC support sites, expansions are not included in this budget unless specifically mentioned. Beginning in FY 1996, for example, all telephone services will be transferred to Naval Computer & Telecommunications Command. These services will then be mission funded in the Operations and Maintenance, Navy account.

### LONG-RANGE STRATEGIC PLAN:

The long range strategic plan developed by the PWC Corporate Steering Group focuses on our customers and the way we do business. Although the plan and milestones are ambitious and challenging, we accept the challenges and will transform our organization and processes in order to remain a viable source of

support to our customers. Execution of our plan will enable us to deliver quality services at a reduced customer price. Practicing the principles of Total Quality Leadership, the PWCs strive for continuous improvement; base decisions on facts, not intuition or opinions; focus on customers' requirements; use performance indicators to measure work processes; and empower our employees.

We have chosen six strategic actions for specific emphasis:

- -- Reduce cost of PWC products and services.
- -- Develop and implement a consistent benchmarking approach to reduce cost and improve cycle time.
- -- Develop processes to ensure timely delivery of specific work to meet customers' requirements and expectations.
- -- Develop customer friendly billing documents and improve the funds receipt and billing process to produce them.
- -- Institute executive level forums with corporate customers, and with Washington stakeholders, within which we can discuss strategic issues related to PWC products and policies.
  - -- Execute our information systems strategic plan.

### CAPITAL BUDGET PROGRAM AUTHORITY:

The capital portion of this budget is designed to achieve economies, reduce risks, ensure that the PWCs meet regulatory requirements, and achieve improvements in reliability and quality. The total proposed investment program is \$25.8 million and \$24.8 million for FYs 1996 and 1997, respectively.

Investment items are approved by PWC Commanding Officers and have tracked to annual operational savings of 16%. These savings have been incorporated within the budget. Prioritization of these investment items is based on the following order of priority; environmental, regulatory compliance, safety and health, and operational requirement.

Congressional restrictions on the purchase of right-hand drive vehicles continues to be a source of serious concern to the Department. A complete discussion can be found below.

### BASE REALIGNMENT AND CLOSURE (BRAC):

This budget reflects workload and personnel adjustments made on the approved Base Realignment and Closure Commission recommendations. Direct costs associated with closure to be paid by BRAC funding are included as direct customer costs, and are not included in the rate calculations.

The most dramatic impact can be seen at PWC San Francisco Bay, which is scheduled for closure in FY 1998. Workload has been reduced each year commensurate with the customer closure plan for San Francisco Bay. Although minor losses in FY 1994 resulted from reduced workload, rates thereafter are set for gains consistent with reduced workload and accumulated operating result recovery. PWC San Francisco Bay has an aggressive plan to reduce costs. Since capital assets will not be replaced at PWC San Francisco Bay, depreciation has been omitted after FY 1994.

Niagara Housing Complex is closing at the end of FY 1995. This complex has 111 housing units and is serviced by PWC Great Lakes. Three end strength were reduced from PWC Great Lakes personnel numbers in FY 1995. The cost and revenue impact is negligible.

PWC Great Lakes staffing and workload have been increased to account for Naval Training Center consolidation at Great Lakes, and caretaker maintenance at Fort Sheridan. In addition, PWC Great Lakes has been assigned operational responsibility for long term family housing assets at Mitchel Field and Manor in Long Island, New York.

The Naval Aviation Depot is closing in Pensacola; however, the Chief of Naval Training is consolidating activities in that area. Utilities usage is expected to be offset by maintenance activities in revenue projections for PWC Pensacola.

PWC San Diego and PWC Norfolk are also facing transitions. Although Navy personnel are vacating the San Diego Naval Training Center, Miramar Naval Air Station, and the Norfolk Naval Aviation Depot, other activities are scheduled to relocate into these areas. Maintenance requirements are expected to be immediate, and workload considerations have been offset.

The final BRAC impact included in this budget is increased orders from the Naval Sea Systems Command as a result of their Headquarters move to White Oak. PWC Washington serves the Naval Surface Warfare Center, Dahlgren Division, White Oak Detachment, which has experienced a reduction in the interim while awaiting the arrival of NAVSEA Headquarters.

### **OVERSEAS LOCATION IMPACTS:**

We have two Public Works Centers in overseas locations. Because of local economic impacts, special situations arise. The Government of Japan (GOJ) is increasing its host nation support by augmenting its share of payment for Foreign National Indirect Hire (FNIH) personnel and utility services. Support is increasing by 25% per year, until full payment is achieved for

regular workyears within GOJ funding limitations. PWC Yokosuka will continue to pay for overtime requirements and requirements beyond the funding limitations.

Through FY 1995, PWC utility rates reflect only the PWC portion of the GOJ rebate with local commands receiving a direct rebate on their total utility bills. This budget reflects a change beginning in FY 1996. PWC Yokosuka will retain the utility rebate from the GOJ, and reflect lower utility rates for its customers. This change has been coordinated with local commands.

To control the total host nation support, the GOJ has placed a ceiling on the number of personnel that may be retained. PWC Yokosuka has reduced FNIH employment levels to comply. To compensate for the reduced employment level, we are contracting for a greater portion of services.

PWC Guam will transfer Navy power transmission to the Guam Power Authority in FY 1996, and will purchase power for customers. This transfer agreement has been finalized after many years of negotiation, and involves assets of \$133 million, and 82 workyears of support.

### TRANSPORTATION FLEET MANAGEMENT:

The Department of Defense Appropriations Act for FY 1994 included \$1.5 million for natural gas vehicle infrastructure planning and demonstration. The Navy portion of these funds was \$750,000; of which, PWC Washington received \$100,000 to install cascade storage facility with multiple slow fill service drops at their existing compressed natural gas fueling station. As with other "pilot" programs, we have not included depreciation for this project in the Business Plan.

In addition, the Department of Energy received special funding authority from Congress for alternative fuel vehicle programs. They have funded conversion for selected vehicles purchased by PWC San Diego to assist the Navy in meeting its clean fuel acquisition rate by FY 1999. This budget assumes that special Congressional interest and funding will continue for alternative fuel vehicles and stations until natural gas vehicles become competitively priced in the market. Without this subsidy, PWC vehicle rates would lead to unwise environmental choices by customers.

10 U.S.C. 2253/(a)/(2) states that the Secretary of Defense and the Secretary of each military department may purchase right-hand drive vehicles (sedans and station wagons) at a cost of not more than \$12,000 each. This cost has not been increased since 1981. Escalation has not been considered, nor have the exchange rates. It is currently impossible to purchase a right-hand vehicle for \$12,000. Using left-hand drive vehicles in right-hand drive

countries is a dangerous and expensive practice. Maintenance costs for existing vehicles are soaring, and the costs associated with short-term leases are prohibitive. If this situation continues, the unit costs for rental services will increase to an unaffordable rate unless 10 U.S.C. 2253/(a)/(2) is revised. A recommended legislative change is proposed with this budget.

PWCs are committed to reducing unit costs in all product/service areas in line with the DMRD process and Performance Reviews, but barriers to effective and efficient business practices in the PWC transportation areas impede progress.

### PRODUCTIVITY AND ENHANCED OPERATIONS:

In establishing the Defense Business Operations Fund, DMRD 971 levied an annual 1% cost-reducing productivity improvement on all DBOF business areas. The Public Works Centers have been able to surpass this level of productivity through gains made through consolidation, process improvements, benchmarking, competitive practices, and partnering efforts. We have been actively involved in the Department's DBOF Cost Reduction Committee for Installation Infrastructure, and have provided specific methodologies for PWC gains with other service representatives.

In addition to the productivity gains reflected in our rate schedules, other significant cost saving benefits accrue directly to our customer base. Several areas benefiting cost reduction efforts are competition, partnering, consolidation, and process improvement.

<u>COMPETITION</u> -- Service decisions based on total value. Value includes quality, quantity, and timeliness factors.

Our competitive outsourcing efforts include contracts and materials, and accounts for 60% of our costs. In addition, another \$101 million is outsourced using direct cite of customer funds. Direct cite workload is not included in PWC revenues or costs, although we activate the contracts.

Rates for labor and other product/service provision are constantly benchmarked against commercial sources. When commercial sources can offer superior value, the PWCs discontinue in-house performance.

<u>PARTNERING</u> -- Working directly with suppliers, customers, and other PWCs to lower overall cost.

Supplier partnering efforts include working with the housing contractor in Pearl Harbor to improve quality and thereby reduce rework; awarding contracts that combine design and construction of facilities; and encouraging waste disposal agents to find less expensive disposal alternatives to normal landfill operations.

PWCs have also been working closely with their customer base to search and implement energy conservation measures based on life-cycle cost in their facilities; self-help assistance; long-range maintenance planning; encouraging recycling efforts and then recommending alternative pickup schedules for the remaining solid waste; offering evening fuel dispensing at parking site from fuel vehicle; initiating 24 hour automated fuel dispensing; recommending avoidance methodologies on electrical peak demand charges; performing vehicle use evaluations to reduce rental; and assessing risk factors in reducing recurring maintenance for facilities and equipment.

The PWC community is also participating in the Fleet Maintenance Concept. We are partnering with study teams in Norfolk and San Diego, and participating on the CNO's Maintenance Support Quality Management Board. The purpose of the study groups is to eliminate duplication of back-shops between PWCs, Shipyards, and Naval Aviation Depots.

PWCs routinely pilot corporate "good ideas" at a single PWC to reduce risk. For example, PWC Great Lakes has just become a landlord. They accepted a building on a closing facility. They will rent it to tenants at a single cost per square foot, which includes maintenance and utilities. This pilot will help us weigh the risk of potentially taking responsibility for properties that we cannot rent to customers, versus the possible long term gains associated with appropriate investment in Navy assets.

CONSOLIDATION -- Savings through economies of scale.

DMRD 967 expanded existing PWCs and directed the establishment of new ones. Savings are being achieved through consolidation of maintenance contracts, elevator inspection contracts, and A&E contracts. In addition, construction projects for individual site hazardous waste storage facilities were canceled because of excess capacity at other consolidated sites. Transportation assets have been pooled to increase rental availability with fewer leasing requirements.

The magnitude of the utility systems allows other economies. Rate intervention and purchase agreement negotiations result in lower unit costs. We have conversion capability for use of alternate fuels for the same boilers; therefore, we can purchase the one with the least overall cost by season and availability.

<u>PROCESS IMPROVEMENT</u> -- We are changing the way we do business through both breakthrough methodologies and incremental improvements.

In process review, the PWCs have employed process action teams to accomplish service and cost improvements. They flow chart targeted processes, collect internal and external data, study alternatives, and make recommendations for improvements.

To improve the responsiveness in completing large maintenance work projects, Navy PWCs are establishing inter-department, functional teams consisting of stakeholders from the maintenance shops, contracts, engineering and customer services departments. This team is the central induction point and is empowered to make "point of sale" decisions on completion methodologies. With customer input, the team confirms understanding of customer requirements, and selects the best method of project completion - using in-house maintenance personnel, job order contracting, multi-trade contracting, small purchase contracting, indefinite quantity contracts, or performance contracting.

We have other gains for our customers in various product/service areas:

- -- At PWC Pensacola, the waste water treatment plant generates hazardous material sludge that is expensive to handle and store. The operators looked for ways to reduce the amount of sludge generated, and were successful in reducing costs.
- -- Several PWCs have performed risk assessments on recurring maintenance for customer facilities and equipment. The amount of maintenance has been adjusted in many cases, leading to overall customer savings.
- -- All PWCs have engaged in overhead studies. Productivity ratios have been increased, thereby lowering the cost of PWC products and services.
- -- A high voltage team recently completed installation of a 12 kilovolt electric line that will allow utilities to buy power from a variety of sources, thereby offering the customer the lowest rate possible.
- -- PWC Pensacola instituted an industry safety program that has already resulted in more than 800,000 hours without a lost time accident in the maintenance department.
- -- Three trash collectors from PWC Great Lakes formed a process action team to study trash collection. They collected data on routes and amounts of trash in every dumpster to improve routes and collection schedules.

PWCs have been successful in benchmarking workload accomplished methodologies with industry and other public institutions, and sharing gains made at one PWC with the other nine.

	FY 1994	FY 1995	FY 1996	FY 1997
VOLUME OF BUSINESS:				
Cost of Goods Sold 1	,917,142	1,778,825	1,704,340	1,692,568
Net Operating Results	75,153	45,549	<52,172>	-0-
Acc Oper Results (AOR)	6,623	52,172	-0-	-0-
CUSTOMER RATE CHANGES:				
PWC Composite				
East Coast	. 4	2.3	<2.9>	.5
West Coast	. 4	6.1	<3.8>	2.7
SUMMARY OF PERSONNEL R	ESOURCES:			
Civilian:				
End Strength	14,652	14,016	13,768	13,442
Workyears	14,096	14,169	13,830	13,477
Military:				
End Strength	112	105	101	97
Workyears	113	105	101	97

### **HEADOUARTERS COSTS:**

The budget reflects PWC headquarters costs of \$912, \$955, \$955, and \$955 thousand in FY 1994 through FY 1997, respectively.

# DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

### **WORKLOAD:**

PRODUCT/SERV	UNIT OF MEASURE		A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	4,251,022	4,149,920	4,008,652	3,988,281
POTABLE WATER	KGAL	24,122,726	23,624,001	23,310,358	22,961,740
SALT WATER	KGAL	8,438,885	7,865,964	8,030,094	8,013,674
HEATING	MBTU	235,774	192,400	475,000	518,000
STEAM	MBTU	8,206,889	7,855,165	7,506,589	7,406,426
CLEAN STEAM	MBTU	3,101,570	3,044,486	3,054,404	3,055,261
SEWAGE	KGAL	14,981,957	15,316,313	14,843,419	14,846,095
NATURAL GAS	MBTU	1,992,856	1,938,241	1,810,917	1,644,284
COMPRESSED AIR	KCF	9,638,027	8,894,685	8,661,215	8,674,790
TELEPHONES	LINES	337,794	1,360,574	0	0
SANITATION SER	VICES				
DEFLICE COLLECT	CUVD	4 400 017	3 405 335	2 455 402	
REFUSE COLLECT PEST CONTROL	CUYD	4,400,917	3,485,335	3,465,103	3,622,115
HAZ WASTE I	HOURS	102,242	118,456	114,138	112,216
HAZ WASTE II	GAL LBS	766,439	1,040,574	1,026,016	1,004,047
		13,252,321	12,987,703	12,429,318	12,097,703
ENVIRON ENG INDUST WASTE	HOURS	87,427	112,716	126,147	129,971
INDUST WASTE	KGAL	198,596	140,271	43,534	43,792
TRANSPORTATION	SERVICE	s -			
EQUIP RENTAL	HOURS	22,742,497	24,272,562	23,820,219	23,462,480
VEHICLE OPS	HOURS	780,138	965,919	1,029,050	1,006,229
VEHICLE MAINT	SRO	89,947	121,486	137,111	136,976
MAINTENANCE &	REPAIR			,	
CDECTETOC	7050				
SPECIFICS	JOBS	9,020	8,577	8,543	8,350
MINORS	ITEMS	41,354	21,371	21,122	20,494
EMERGENCY/SERV	CHITS	418,959	358,602	351,063	351,933
RECURRING	ITEMS	121,186	85,998	89,282	88,868
DESIGN					
DESIGN MANAGE	CWE	165,316,542	211,944,953	183,065,714	207 004 334
PWC DESIGN	CWE	168,952,881	154,242,331	181,943,147	207,094,334
PLANNING	HOURS	390,163	381,828	388,153	176,561,120 389,800
		-50,205	331,020	500,155	303,000

### CONTRACTING

FSC ADMIN FSC INSPECTION	WIP	223,853,718	264,107,265 261,903,493		271,462,771 267,690,254
FSC INSPECTION	WIP	181,933,008			
NON-MCON ADMIN	WIP	121,629,066	87,341,001	116,825,514	120,573,333
NON-MCON INSPEC	WIP	47,915,681	45,641,681	60,133,139	60,795,478

# DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

<b>UNIT COSTS</b> :					
PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
			F133	F130	F19/
			•		
ELECTRICITY	MWH	87.85	90.71	86.86	84.66
POTABLE WATER	KGAL	2.87	2.83	2.43	2.31
SALT WATER	KGAL	0.71	0.62	0.74	0.67
HEATING	MBTU	10.44	9.76	11.69	10.96
STEAM	MBTU	14.65	13.45	14.13	13.76
CLEAN STEAM	MBTU	13.74	16.79	15.95	15.21
SEWAGE	KGAL	4.00	3.81	3.95	3.79
NATURAL GAS	MBTU	6.07	6.25	5.87	6.04
COMPRESSED AIR		1.06		1.07	1.21
TELEPHONES	LINES	47.38	37.51	0.00	0.00
SANITATION SER	VICES				
REFUSE COLLECT	CUYD	4.38	5.85	5.69	5 50
PEST CONTROL	HOURS	41.99		5.69 41.67	5.60 40.40
HAZ WASTE I	GAL	3.54	2.26	2.33	2.28
HAZ WASTE II	LBS	1.71	1.89	1.98	1.94
ENVIRON ENG	HOURS	64.01	60.38	60.80	61.95
INDUST WASTE	KGAL	26.35	35.61	85.93	92.57
TRANSPORTATION	SERVICES				
EQUIP RENTAL	HOURS	3.38	2.92	2 20	2 22
VEHICLE OPS	HOURS	47.29	35.51	3.38 37.18	3.22
VEHICLE MAINT	SRO	181.88	144.61	134.54	38.19 138.84
				101.51	130.04
MAINTENANCE & I	REPAIR				
SPECIFICS	JOBS	32612.42	27711.16	28261.66	29748.14
MINORS	ITEMS	2803.36	4695.11	4765.65	4892.56
EMERGENCY/SERV	CHITS	147.08	199.84	208.82	214.64
RECURRING	ITEMS	1797.14	2280.58	2244.73	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0353	0.0308	0.0361	0.0343
PWC DESIGN	CWE	0.0804	0.1046	0.0999	0.1016
PLANNING	HOURS	56.47	48.51	50.51	51.70

### CONTRACTING

FSC ADMIN WIP	0.0754	0.0720	0.0693	0.0721
FSC INSPECTION WIP	0.0900	0.0657	0.0678	0.0649
NON-MCON ADMIN WIP	0.0854	0.0718	0.0663	0.0637
NON-MCON INSPEC WIP	0.0472	0.0622	0.0568	0.0554

# DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

REVENUE COMPUT					
	UNIT OF	ACTUALS	A-11	A-11	A-11
PRODUCT/SERV	MEASURE	FY94	FY95	FY96	FY97
			,		
ELECTRICITY	MWH	92.04	96.90	85.96	84.66
POTABLE WATER	KGAL	2.47	2.72	2.39	2.31
SALT WATER	KGAL	0.63	0.65	0.64	0.67
HEATING	MBTU	10.32	9.75	11.81	10.96
STEAM	MBTU	14.24	14.21	13.84	13.76
CLEAN STEAM	MBTU	17.15	17.42	15.26	15.21
SEWAGE	KGAL	3.71	3.79	3.60	3.79
NATURAL GAS	MBTU	6.45	6.71	6.22	6.04
COMPRESSED AIR			1.19	· · · ·	1.21
TELEPHONES	LINES	56.78	41.90	0.00	0.00
SANITATION SER	VICES				
REFUSE COLLECT	CUYD	4.73	6.16	5.68	5.60
PEST CONTROL	HOURS		40.20	40.97	
HAZ WASTE I	GAL	4.66	2.60	2.33	2.28
	LBS	1.79	1.91	1.93	1.94
ENVIRON ENG	HOURS		62.00		61.95
INDUST WASTE	KGAL	24.10	35.08	83.99	92.57
TRANSPORTATION	SERVICES				
EQUIP RENTAL	HOURS	2.83	2 95	2.94	3.22
VEHICLE OPS		44.49			38.19
VEHICLE MAINT	SRO		147.59		138.84
MAINTENANCE & I	REPAIR				
SPECIFICS		22654 12	20002 02	0.000	
MINORS	*	33654.12 2725.22			
EMERGENCY/SERV		146.47	4742.83 199.32	4610.40	4892.56
RECURRING	ITEMS	1803.26	2279.41	204.30 2178.00	214.64 2249.70
	2 1 2110	1003.20	22/3.41	2178.00	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0405	0.0323	0.04	0.03
PWC DESIGN	CWE	0.0852	0.1095	0.10	0.10
PLANNING	HOURS	57.69	49.24	50.70	51.70
-		- , , , ,		20.70	31.70

### CONTRACTING

FSC ADMIN	WIP	0.0742	0.0769	0.07	0.07
FSC INSPECTION	WIP	0.0712	0.0628	0.07	0.06
NON-MCON ADMIN	WIP	0.0773	0.0706	0.07	0.06
NON-MCON INSPEC	WIP	0.0550	0.0578	0.06	0.06

# PERFORMANCE MEASURES DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

assure accountability, and assist in making sound budget decisions. In addition to the above, the considerations for indicator changes were that each must be meaningful to the majority of the reporting groups (e.g., PWCs, Naval Facilities Engineering Command, Comptroller of the Navy, and the Office of the Secretary of Defense), controllable by the commodity manager, and already measured through normal reporting process or could be measured without significant additional cost to prevent establishment of a "measurement bureaucracy." Key corporate performance measures for Navy Public Works Centers have been established. The overall goal of the PWC Corporate Steering Group (CSG) was to establish a cadre of measurement devices that would measure products/services to gauge effectiveness, assist in management of the products/services,

Although unit cost remains the primary efficiency measure, we also track the percentage of total cost that is out-sourced, the greatest growth commodities, the commodities in decline, and operating results when compared to budget. Although unit cost

FY 1997	60.1
FY 1996	60.8
FY 1995	62.4 45,549
FY 1994	59.9 939
FY 1993	57.6 -25,936
	Out-sourcing Percentage Net Operating Results (\$000)

CUSTOMER SATISFACTION

Customer satisfaction is clearly viewed as the most important PMC product/service indicator since cost, quality, quantity, and timeliness affect the outcome. A customer survey is given annually by each of the PMCs. A five-point scale showing an average index is provided.

the initial customer satisfaction goal is to improve by .1 each year through FY 1997.

	Overall Utilities service Transportation service Contracts Engineering	
FY 1993	8 0 9 9 9 6 7 6 9 9 7 7	
FY 1994	80000000000000000000000000000000000000	
FY 1995	444WWW	
FY 1996	444WW4 - WG 9 9 0	
FY 1997	2.4 4.4 5.0 6.0 1.4	

QUALITY

Although customer satisfaction remains the best indicator of overall value which includes quality, other indicators have been established that have immense impact on the productivity of our customer base:

Electricity outage -- number of umplanned interruptions to service.

FY 1	
FY 1996	734
FY 1995	273
FY 1994	840
FY 1993	856

769

# PERFORMANCE MEASURES DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

Transportation availability/utilization -- actual rentals of equipment divided by total possible rental hours.

FY 1997	92%
FY 1996	216
FY 1995	¥06
FY 1994	87%
FY 1993	88%

TIMEL INESS

Timeliness indicators are most important in the area of maintenance of real property.

Emergency and service work are small jobs that take less than 16 hours to complete. The indicator is the average (mean) that it takes from the time the customer calls in the order, until the customer signs off on the job as complete.

Minor and specific work are larger scale jobs -- over 16 hours to complete. The indicator is the average (mode) that it takes from the time the order is received and funded, until the customer signs off on the job as complete.

Two other timeliness-base goals for the PWC corporation are in the areas of real property execution. Execution can have significant financial and effectiveness impact on the products/services provided by the PWCs. We track the percentage of PWC plant value spent on MRP. 2.11 FY 1997 FY 1996 2.18 2.18 FY 1995 2.65 FY 1994 2.56 FY 1993

# DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

### WORKLOAD:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY POTABLE WATER SALT WATER HEATING STEAM CLEAN STEAM SEWAGE NATURAL GAS COMPRESSED AIR TELEPHONES	MWH KGAL KGAL MBTU MBTU MBTU KGAL MBTU KCF LINES	4,251,022 24,122,726 8,438,885 235,774 8,206,889 3,101,570 14,981,957 1,992,856 9,638,027 337,794	4,149,920 23,624,001 7,865,964 192,400 7,855,165 3,044,486 15,316,313 1,938,241 8,894,685 1,360,574	4,008,652 23,310,358 8,030,094 475,000 7,506,589 3,054,404 14,843,419 1,810,917 8,661,215	3,988,281 22,961,740 8,013,674 518,000 7,406,426 3,055,261 14,846,095 1,644,284 8,674,790
SANITATION SER	VICES				
REFUSE COLLECT PEST CONTROL HAZ WASTE I HAZ WASTE II ENVIRON ENG INDUST WASTE	CUYD HOURS GAL LBS HOURS KGAL	4,400,917 102,242 766,439 13,252,321 87,427 198,596	3,485,335 118,456 1,040,574 12,987,703 112,716 140,271	3,465,103 114,138 1,026,016 12,429,318 126,147 43,534	3,622,115 112,216 1,004,047 12,097,703 129,971 43,792
TRANSPORTATION	SERVICES	5			
EQUIP RENTAL VEHICLE OPS VEHICLE MAINT	HOURS HOURS SRO	22,742,497 780,138 89,947	24,272,562 965,919 121,486	23,820,219 1,029,050 137,111	23,462,480 1,006,229 136,976
MAINTENANCE & I	REPAIR				
SPECIFICS MINORS EMERGENCY/SERV RECURRING	JOBS ITEMS CHITS ITEMS	9,020 41,354 418,959 121,186	8,577 21,371 358,602 85,998	8,543 21,122 351,063 89,282	8,350 20,494 351,933 88,868
DESIGN					
DESIGN MANAGE PWC DESIGN PLANNING	CWE CWE HOURS	165,316,542 168,952,881 390,163	211,944,953 154,242,331 381,828	183,065,714 181,943,147 388,153	207,094,334 176,561,120 389,800
CONTRACTING					
FSC ADMIN FSC INSPECTION NON-MCON ADMIN NON-MCON INSPEC	WIP WIP WIP C WIP	223,853,718 181,955,608 121,629,066 47,915,681	264,107,265 261,903,493 87,341,001 45,641,681	264,286,081 265,541,200 116,825,514 60,133,139	271,462,771 267,690,254 120,573,333 60,795,478

## DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

### UNIT COSTS:

	UNIT OF	ACTUALS	A-11	A-11	A-11
PRODUCT/SERV	MEASURE	FY94	FY95	FY96	FY97
ELECTRICITY	MWH	87.85	90.71	86.86	84.66
POTABLE WATER	KGAL	2.87	2.83	2.43	2.31
SALT WATER	KGAL	0.71	0.62	0.74	0.67
HEATING	MBTU	10.44	9.76	11.69	10.96
STEAM	MBTU	14.65	13.45	14.13	13.76
CLEAN STEAM	MBTU	13.74	16.79	15.95	15.21
SEWAGE	KGAL	4.00	3.81	3.95	3.79
NATURAL GAS	MBTU	6.07	6.25	5.87	6.04
COMPRESSED AIR	KCF	1.06	0.99	1.07	1.21
TELEPHONES	LINES	47.38	37.51	0.00	0.00
SANITATION SER	VICES				
REFUSE COLLECT	CUYD	4.38	5.85	5.69	5.60
PEST CONTROL	HOURS	41.99	39.75	41.67	40.40
HAZ WASTE I	GAL	3.54	2.26	2.33	2.28
	LBS	1.71	1.89	1.98	1.94
HAZ WASTE II		64.01	60.38	60.80	61.95
ENVIRON ENG	HOURS				92.57
INDUST WASTE	KGAL	26.35	35.61	85.93	92.57
TRANSPORTATION	SERVICES				
EQUIP RENTAL	HOURS	3.38	2.92	3.38	3.22
VEHICLE OPS	HOURS	47.29	35.51	37.18	38.19
VEHICLE MAINT	SRO	181.88	144.61	134.54	138.84
MAINTENANCE & F	REPAIR				
SPECIFICS	JOBS	32612.42	27711.16	28261.66	29748.14
MINORS	ITEMS	2803.36	4695.11	4765.65	4892.56
EMERGENCY/SERV	CHITS	147.08	199.84	208.82	214.64
RECURRING	ITEMS	1797.14	2280.58	2244.73	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0353	0.0308	0.0361	0.0343
PWC DESIGN	CWE	0.0804	0.1046	0.0999	0.1016
PLANNING	HOURS	56.47	48.51	50.51	51.70
CONTRACTING					
FSC ADMIN	WIP	0.0754	0.0720	0.0693	0.0721
FSC INSPECTION	WIP	0.0900	0.0657	0.0678	0.0649
NON-MCON ADMIN	WIP	0.0854	0.0718	0.0663	0.0637
NON-MCON INSPEC	WIP	0.0472	0.0622	0.0568	0.0554

## DEFENSE BUSINESS OPERATIONS FUND NAVY PUBLIC WORKS CENTERS BASE SUPPORT

### REVENUE COMPUTED RATE:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	92.04	96.90	85.96	84.66
POTABLE WATER	KGAL	2.47	2.72	2.39	2.31
SALT WATER	KGAL	0.63	0.65	0.64	0.67
HEATING	MBTU	10.32	9.75	11.81	10.96
STEAM	MBTU	14.24	14.21	13.84	13.76
CLEAN STEAM	MBTU	17.15	17.42	15.26	15.21
SEWAGE	KGAL	3.71	3.79	3.60	3.79
NATURAL GAS	MBTU	6.45 -	6.71	6.22	6.04
COMPRESSED AIR	KCF	1.11	1.19	0.99	1.21
TELEPHONES	LINES	56.78	41.90	0.00	0.00
SANITATION SER	VICES				
REFUSE COLLECT	CUYD	4.73	6.16	5.68	5.60
PEST CONTROL	HOURS	38.01	40.20	40.97	40.40
HAZ WASTE I	GAL	4.66	2.60	2.33	2.28
HAZ WASTE II	LBS	1.79	1.91	1.93	1.94
ENVIRON ENG	HOURS	56.33	62.00	60.18	61.95
INDUST WASTE	KGAL	24.10	35.08	83.99	92.57
TRANSPORTATION	SERVICES				
EOUIP RENTAL	HOURS	2.83	2.85	2.94	3.22
VEHICLE OPS	HOURS	44.49	37.12	34.74	38.19
	SRO	178.63	147.59	126.29	138.84
MAINTENANCE & E	REPAIR				
SPECIFICS	JOBS	33654.12	28082.92	27333.06	29748.14
MINORS	ITEMS	2725.22	4742.83	4610.40	4892.56
EMERGENCY/SERV		146.47	199.32	204.30	214.64
RECURRING	ITEMS	1803.26	2279.41	2178.00	2249.70
DESIGN					•
DESIGN MANAGE	CWE	0.0405	0.0323	0.04	0.03
PWC DESIGN	CWE	0.0852	0.1095	0.10	0.10
PLANNING	HOURS	57.69	49.24	50.70	51.70
CONTRACTING					
					_
FSC ADMIN	WIP	0.0742	0.0769	0.07	0.07
FSC INSPECTION		0.0712	0.0628	0.07	0.06
NON-MCON ADMIN	WIP	0.0773	0.0706	0.07	0.06
NON-MCON INSPEC	WIP	0.0550	0.0578	<b>0</b> .06	0.06

# DEFENSE BUSINESS OPERATIONS FUND DEPARTMENT OF THE NAVY Public Works Centers REVENUE AND EXPENSES

	_FY 1994	FY 1995	_FY 1996	FY 1997
Revenue:	٠.			
Gross Sales	1,918.1	1,824.4	1,652.2	1,692.6
Operations	1,863.5	1,801.4	1,629.8	1,670.4
Capital Surcharge	0.0	0.0	0.0	0.0
Depreciation except Maj Const	26.7	23.0	22.4	22.2
Major Construction Depreciation	27.9	0.0	0.0	0.0
Other Income	<b>0</b> .0	0.0	0.0	0.0
Refunds/Discounts (-)	<b>0</b> .0	0.0	0.0	0.0
Total Income	1,918.1	1,824.4	1,652.2	1,692.6
Expenses:				
Cost of Materiel Sold from Inventory	. 0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	6.9	5.2	5.2	5.1
Salaries and Wages:				
Military Personnel	7.3	7.3	6.6	6.7
Civilian Personnel	599.8	608.8	613.5	619.4
Materials, Supplies and				
Parts used in Operations	21.3	156.8	165.6	163.7
Facility Repair Charge	211.7	270.4	263.4	255.8
Depreciation - Capital	55.1	23.0	22.4	22.2
Contracted Engineering Services	9.2	14.5	14.1	14.4
Lease Costs	6.4	7.4	6.2	5.2
Purchased Utilities	331.1	346.5	331.9	329.9
Purchased Communications	89.5	56.7	2.3	1.9
Equipment Maintenance	2.4	3.3	3.2	3.1
Fuel	28.5	26.7	26.9	26.7
Other Expenses	547.9	252.4	243.0	238.5
Total Expenses	1,917.1	1,778.8	1,704.3	1,692.6
Operating Result	0.9	45.5	(52.2)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	74.2	0.0	0.0	0.0
Net Operating Result	75.2	45.5	(52.2)	0.0
Prior Year AOR	(68.5)	6.6	52.2	0.0
Accumulated Operating Result	6.6	52.2	0.0	0.0

### BUSINESS AREA ANALYSIS DEPARTMENT OF THE NAVY PUBLIC WORKS CENTERS SOURCE OF REVENUE

1. New Orders	FY 1994 2,067.7	FY 1995 1,800.3	FY 1996 1,634.9	FY 1997 1,677.0
a. Orders from DoD Components	1,516.9	1,324.8	1,234.5	1,279.7
Department of the Navy	1,229.1	1,084.5	1,022.7	1,056.0
Operations and Maintenance, Navy	926.4	806.3	786.1	818.8
Operations and Maintenance, Marine Corps	11.1	12.2	11.2	11.6
O&M, Navy Reserve	11.9	13.4	12.7	12.6
O&M, Marine Corps Reserve	1.0	2.2	2.2	2.2
Aircraft Procurement, Navy	0.5	0.4	0.4	0.4
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	1.5	1.9	1.6	1.5
Other Procurement, Navy	5.8	3.0	1.9	2.0
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	246.4	229.3	193.2	193.2
Research, Development, Test & Eval, Navy	5.6	6.0	6.1	6.2
Military Construction, Navy	10.8	2.0	1.8	1.4
Other Navy Appropriations	7.7	7.5	5.2	5.4
Other Marine Corps Appropriations	0.5	0.5	0.4	0.4
Department of the Army	79.3	73.5	67.3	71.2
Army Operation & Maintenance Accounts	20.7	73.5	67.3	71.2
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	0.7	0.0	0.0	0.0
Army Other	57.8	0.0	0.0	0.0
Department of the Air Force	16.0	20.0	20.0	20.1
Air Force Operation & Maintenance Accounts	15.5	20.0	20.0	20.1
Air Force Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.4`	0.0	0.0	0.0
DoD Appropriated Accounts	192.6	146.7	124.5	132.4
Base Closure and Realignment	55.2	16.4	5.8	12.9
Operation & Maintenance Accounts	86.8	35.0	29.7	27.5
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.1	0.0	0.0	0.0
DoD Other	50.6	95.4	88.9	91.9
b. Orders from DBOF Business Areas	505.3	427.9	357.3	354.6
c. Total DoD	2,022.2	1,752.7	1,591.7	1,634.3
d. Other Orders	45.5	47.6	43.2	42.7
Other Federal Agencies	10.2	18.1	16.6	15.8
Trust Funds (including FMS)	0.6	0.9	0.9	1.0
Non Federal Agencies	34.7	28.6	25.7	26.0
2. Carry-In Orders	465.1	614.7	590.7	573.4
3. Total Gross Orders (available funding)	2,532.8	2,415.0	2,225.6	2,250.4
4. Carry-Out Orders	614.7	590.7	573.4	557.9
Change in Backlog (carry-out less carry-in)	149.6	(24.1)	(17.2)	(15.6)
5. Total Gross Sales	1,918.1	1,824.4	1,652.2	1,692.6

# Summary of Price, Program and Other Changes (Operating Budget) Department of the Navy Public Works Centers February 1995 (\$ in Thousands)

	Cost of Operations <b>EY 1994</b>	Price Growth	Program & Other Changes	Cost of Operations EY 1995	Price Growth	Program & Other Changes	Cost of Operations <b>FY 1996</b>	Price Growth	Program & Other Changes	Cost of Operations <b>EY 1997</b>
Military Personnel Compensation	7,304	183	(140)	7,347	0	(728)	6,619	72	(136)	6,555
Civilian Personnel Compensation	599,831	8,836	83	608,756	19,029	(14,326)	613,459	19,420	(13,509)	619,370
Travel	6,067	69	(2,132)	4,004	26	(87)	3,973	26	(77)	3,952
Material & Supplies - Commercial	131,050	3,626	(12,325)	122,351	3,670	3,750	129,771	3,882	(8,392)	125,261
Material & Supplies - from DBOF	65,918	3,452	(5,615)	63,755	(490)	2,349	65,614	2,817	(113)	68,318
Other Intrafund (DBOF) Purchases	20,328	1,272	1,463	23,063	(928)	2,062	24,167	1,226	(1,046)	24,347
Transportation	784	22	362	1,168	28	52	1,251	38	(113)	1,176
Capital Investment Depreciation	55,144	0	(32,191)	22,953	0	(223)	22,394	0	(198)	22,196
Other Purchases	1,030,715	32,981	(138,268)	925,428	27,867	(116,203)	837,092	25,283	(40,982)	821,393
Total Operating Budget * Includes Reimbursements	1,917,141	50,441	(188,757)	1,778,825	49,232	(123,717)	1,704,340	52,794	(64,566)	1,692,568

# DEFENSE BUSINESS OPERATIONS FUND BASE SUPPORT NAVY PUBLIC WORKS CENTER

## CHANGES IN THE COSTS OF OPERATIONS (Dollars in Millions)

	Costs
FY 1994 Actual	1,917.1
FY 1995 Estimate in President's Budget:	1,838.6
Estimated Impact in FY 1995 of Actual FY 1994 Experience	::
Consolidated Area Telephone System Contract Buyout PWC Guam Earthquake damage repairs	(25.8) 9.1
Pricing Adjustments:	
Pay Raise:	
FY 1995 Civilian Personnel pay raise change	4.3
Program Changes:	
Curtailment of PWC San Francisco Bay depreciation Increase in workload associated with Base Closure/Realignment; Maintenance and Repair; Utilities Work; Environmental Clean Up and	(4.6)
Compliance; and other Public Works support workload requirements Transfer of operational responsibilities of long	101.4
term housing at Mitchel Field and Manor in Long Isla New York to PWC Great Lakes	nd, 4.4
Other Changes:	
Remove "duplicate" costs for MRP (revised DFOF Policy) Passenger carrying vehicles transferred to Other	(148.4)
Procurement, Navy Capital Procurement Program threshold change Other	(0.8) 3.3 (3.4)
FY 1995 Current Estimate:	1,778.1

### DEFENSE BUSINESS OPERATIONS FUND BASE SUPPORT NAVY PUBLIC WORKS CENTER

### **CHANGES IN THE COSTS OF OPERATIONS**

	Costs
FY 1995 Current Estimate:	1,778.1
Pricing Adjustments:	
Pay Raise:	
FY 1996 Civilian Personnel pay raise Annualization of FY 1995 pay raise Fuel Materials & Supplies General Purchases	14.9 4.1 2.0 1.2 27.0
Productivity Initiatives and Other Efficiencies:	(23.3)
Program Changes:	
Assumption of Government of Japan utility rebate Phased closure of PWC San Francisco Bay due to	(21.4)
Base Closure Increased renovation, maintenance and repair, construction workload at PWC Washington associated with the move of the Naval Sea Systems Command	(39.7)
Headquarters to White Oak, Maryland	4.7
PWC Guam Earthquake damage repairs completed to date Increase of workload in environmental cleanup and	(4.0)
compliance Increased maintenance and repair workload associated with the implementation of BRAC decisions and	1.7
anticipated customer orders Telephone transfer to Naval Computer &	10.2
Telecommunications Command (O&M, Navy funded)	(58.5)
Other Changes:	
Defense Finance and Accounting Service charges Other	6.9 (3.0)
FY 1996 Estimate	1,704.3

### DEFENSE BUSINESS OPERATIONS FUND BASE SUPPORT NAVY PUBLIC WORKS CENTER

### CHANGES IN THE COSTS OF OPERATIONS (Dollars in Millions)

	Costs
FY 1996 Estimate	1,704.3
Pricing Adjustments:	
Pay Raise:	
FY 1997 Civilian Personnel pay raise Annualization of FY 1996 pay raise Fuel Materials & Supplies General Purchases	14.5 4.9 0.4 6.3 26.6
Productivity Initiatives and Other Efficiencies:	(17.5)
Program Changes:	
Phased closure of PWC San Francisco Bay due to Base Closure Workload decrease due to Defense downsizing and	(31.9)
Base Closure Continued increase in renovation, maintenance and repair, and construction workload at PWC Washington associated with the move of the Naval Sea System	(14.1)
Command Headquaters to White Oak, Maryland PWC Guam Earthquake damage repairs completed	5.0 (5.0)
Other Changes:	(2.5)
FY 1997 Estimate	1,692.6

BUSINESS AREA CAPITAL BUDGET SUMMARY Component: Department of the Navy Base Operations/Public Works Centers Date: January 1995 (\$ in Millions)

LINE	Item Description	FY \$25k Thre	1 W	FY 1995 \$50K Threshold	Y 1995 reshold	F \$50K TH	FY 1996 \$50K Threshold	FY 1997 \$50K Threshold	FY 1997 hreshold
#		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
0001	1a. Equipment-Non ADPE - Replacement - Productivity - New Mission	0	0.000	0	0.000	0	0.000	<del>-</del>	0.854
	>\$500,000 Subtotal Equipment	0	0.000	0	0.000	0	0.000	~	0.854
	1b. Equipment -Non ADPE - Replacement - Productivity - New Mission	351	20.194	116	7.400	190	16.006	163	15.454
	Subtotal Equipment	351	20.194	116	7.400	190	16.006	163	15.454
0002	2. Minor Construction	88	7.864	56	6.900	50	8.559	47	7.237
0003	3. Equipment ADPE & Telecomm	58	. 2.589	0	0.000	13	0.847	16	1.062
0004	4. Software Development	8	0.690	9	0.400	ဖ	0.413	က	0.200
	TOTAL	505	31.337	178	14.700	259	25.825	230	24.807

BUSIN	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ In Thousands)	CAPITAI	PITAL PURCHASE (\$ In Thousands)	ISES JUS'	TIFICATIO	z		A. FY 1996/1997 President's	6/1997 Pr	esident's		
B. Department of the Navy/Base Operations/Public Works Centers	avy/Base orks Cente	2		C. 0001	Equipmen > \$500,000	t-Non ADP	C. 0001 Equipment-Non ADPE Replacement > \$500,000	ment		D. Public Works Centers	Works Cen	ters
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total Cost
Equipment Non-ADPE							0	00.00	0	-	854.00	854
TOTAL								0.00	0		854.00	854
Namative Justification:												

PWC San Diego currently has a 26 year old 70 ton crane truck in its inventory which has reached the point where frequency of breakdown, parts availability pier side to berthed ships. Due to weight limits for the Naval Station San Diego piers other 90 and 100 ton cranes available in the PWC inventory cannot and high maintenance have restricted its availability to meet customer requirements. Replacement of this crane is essential to perform heavy lifts from be utilized.

has a 130 foot boom as compared to the requested 70 ton crane with a 240 foot boom. This new capability will permit the PWC to perform antennae work without leasing to meet customer demands. Costs to lease equipment with the longer boom exceed \$100,000 annually over projected inhouse capability. equipment operation does not meet standards for safety in hazardous materials handling thus limiting workload applications. Further, the current crane Demand for this type of lift capability is essential to meet fleet needs and provide service at the least cost to PWC customers. Due to the age of this

Failure to increase funding for this crane will result in increase cost to PWC customers and delayed achievement of budgeted cost improvements.

BUSI	NESS AR	EA CAPIT	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	HASES J	USTIFICA	VIION		A. FY 1996/1997 President's	6/1997 Pm	sident's		
B. Department of the Navy/Base Operations/Public Works Centers	Navy/Bas Works Ce	e inters		C. 0001	Equipmer	nt, Non-AE	0001 Equipment, Non-ADPE- Replacement	ement		D. Public Works Centers	Norks Ce	nters
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total
Equipment Non-ADPE							190	84.24	16.006	163	94.81	15 454
TOTAL								84.24	16,006		94.81	15,454
Narrative Justification:												

Equipment includes milling machines, band saws, sheet metal cutters/presses, welding machines, engine analyzers, material handling (i.e. fork lifts), car/fruck washers, generators, and telephone switches. Civil Engineering Support Equipment (CESE) Includes frucks, trailers, crawler cranes, crane trucks, backhoes,

transportation functions. Environmental and pollution compliance equipment includes environmental lab equipment, above ground fuel storage other equipment required to operate the PWC mission within state and federal environmental compliance standards. Administrative equipment Includes automated filing systems, micro film/fiche readers, copiers and other administrative equipment incident to administrative functions. containment units, portable environmental monitoring units, portable emergency shower units, oil skimmers, spill containment booms and and other vehicles incident to public works

PWC shop, CESE, environmental, and administrative equipment supports customer maintenance, repair, construction, utilities, and transportation workload delays and equipment downtimes. Replacements will provide for stable equipment maintenance costs and effective environmental requirements. Equipment purchases as budgeted will replace overaged as well as equipment beyond economical repair. This will reduce compliance which are directly related to units costs.

annually. Delays/reductions in requested authorization will result in lost budgeted cost improvements, resulting in higher unit costs to the customer. Expansions and newly formed Centers have Increased total Inventories by more than 32% and have significantly increased the average age of procurement objectives have been established for each category to replace equipment within guidance and at an average rate of 800 items our equipment inventories. The average age of contributed vehicles is approximately twice the age of current PWC fleets. As such,

L	BUSII	NESS AR	EA CAPIT	BUSINESS AREA CAPITAL PURCHASES (\$ in Thousands)	HASES J	HASES JUSTIFICATION sands)	TION		A. FY 1996/1997 President's	6/1997 Pm	sident's		
	B. Department of the Navy/Base Operations/Public Works Centers	Navy/Bas Vorks Cel	e nters		C. 0002	Minor Cor	C. 0002 Minor Construction				D. Public Works Centers	Norks Ce	nters
1			FY 1994			FY 1995			FY 1996			FY 1997	
	Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
	Minor Const.							50	84.92	4,246	47	153.98	7,237
	TOTAL								84.92	4,246		153.98	7,237
<u> </u>	Narrative Justification:												
()	O Narrative Justification:											j	

Minor construction includes mission facilities and environmental projects to construct shelters for hazardous waste storage, environmental test labs, water/sewage pumping equipment, materials storage, security fencing/lighting, fire protection sprinkler systems, utilities control systems, paving, sludge drying beds, water lines, and other facilities in support of PWC products and services.

compliance requirements. These projects will reduce operational hazards, stabilize maintenance costs and meet environmental standards Construction projects as budgeted provide enhanced PWC shop and operational facilities which include safety, security and environmental which are directly related to unit costs. Expansions and newly formed Centers have Increased total facilities inventories by 34%. As such, construction objectives have been established to enhance and secure PWC facilities within guidance and at an average rate of 95 projects annually. Delays/reductions in requested authorizations will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

na	BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	EA CAPITA	AL PURCHASES JI (\$ in Thousands)	ASES JUS	TIFICATIO	2		A. FY 199	A. FY 1996/1997 President's	sident's		
B. Department of the Navy/Base Operations/Public Works Centers	Navy/Base Works Cent	ters		C. 0003 E	0003 Equipment ADPE & Telecomm < \$100K	ADPE & T	elecomm			D. Public Works Centers	Works Cen	ters
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	rotal Cost	Quant	Unit Cost	Total Cost	Quant	Unit	Total
Equipment ADPE & Telecomm							11	56.09	617	7.	57.47	280
TOTAL								56.09	617		57.47	862
Narrative Justification:												

ADP equipment purchases represent microcomputers, microcomputer networks, high speed printers, minicomputers, file/com servers, reader/printers, CD-ROM image piotters, retrieval systems, local area networks, and other hardware/software in support of the PWC Management Information System (PWCMiS). Information Management hardware/software directly supports PWCMIS and provides automated information support to the PWC and customers. The system consists of applications designed to fulfili the management requirements of commercial accounting, budget and cost; production management, which includes controls for the production workforce; and all categories of work from receipt to completion in the Planning, Maintenance, Utilities and Transportation Departments. Equipment purchases insupport of PWCMIS will replace overaged and obsolete equipment to ensure continuous system reliability and maintenance.

Expansions and newly formed Centers have increased total inventories significantly. As such, procurement objectives have been established to replace equipment within guidance and at an average rate of 70 items annually. Delays/reductions in requested authorizations will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

BUS	BUSINESS AREA CAPITAL PURC (\$ in Thou	REA CAP	ITAL PURCHASES (\$ in Thousands)	CHASES ousands)	HASES JUSTIFICATION sands)	CATION		A. FY 19	96/1997	A. FY 1996/1997 President's	မွာ	
B. Department of the Navy/Base Operations/Public Works Centers	avy/Base /orks Cen	iters		C. 0003	ADPE & > \$100K	C. 0003 ADPE & Telecomm > \$100K				D. Public Works Centers	: Works C	enters
		FY 1994			FY 1995			FY 1996			FY 1997	
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADPE & Telecomm							2	115.00	230	+	200 00	200
TOTAL								115.00	230		200.00	200
Narrative Justification:												

ADP equipment purchases over \$100K represent a minicomputer and two network file and communication servers, in support of the PWC Management Information Systems (PWCMIS)

The system consists of applications designed to fulfill the management requirements of commercial accounting, budget and cost; production management, which includes controls for the production workforce; and all categories of work from receipt to completion in the Planning, Maintenance, Utilities and Transportation Departments. Equipment purchases insupport of PWCMIS will replace overaged and obsolete Information Management hardware directly supports PWCMIS and provides automated information support to the PWC and customers. equipment to ensure continuous system reliability and maintenance.

Delays and/or reductions in requested authorization will result in lost budgeted cost improvements, resulting in higher unit costs to the customer. Expansions and newly formed Centers have increased total inventories significantly. As such, procurement objectives have been established to replace equipment within guidance and when they become uneconomical or cause delays in information process.

				C	0	
	inters		Total Cost	200	200	
	Vorks Ce	FY 1997	Unit Cost	66.67	66.67	office,
esident's	D. Public Works Centers		Quant	က		e systems, ar
3/1997 Pm			Total	413	413	ency services system, e
A. FY 1996/1997 President's		FY 1996	Unit Cost	68.83	68.83	ims, emerge
	ent		Quant	ဖွ		mation syste
ATION	0004 Software Development		Total Cost			stomer infor plications pr
USTIFIC	Software	FY 1995	Unit			eloping cu
BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (\$ in Thousands)	C. 0004 S		Quant			port in dew
			Total			ce and sup ed are purci nt system.
EA CAPIT	iters	FY 1994	Cost			or assistan Nso include nanageme
INESS AR	Vavy/Bas Vorks Cer		Quant			ct contract systems. I material r
BUSI	B. Department of the Navy/Base Operations/Public Works Centers		Element of Cost	Software	TOTAL	Narrative Justification: Software purchases reflect contractor assistance and support in developing customer information systems, emergency service systems, and geographics information systems. Also included are purchases of software applications program for the production system, environmental office, contract, engineering and material management system.

# FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: PUBLIC WORKS

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.